

# **1- Diploma in Public Health (Majoring Epidemiology)**

*Students should fulfill a total of 26 credit hours:*

## **1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 150605, 1501600

## **2- Compulsory courses: 10 credit hours.**

1501601, 1501602, 1501603, 1501604

## **3- Elective courses: 6 credit hours.**

1501605, 1501606, 1501607, 1501608, 1501609, 1501610, 1502602, 1502603, 1502605

## **1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1501600	Epidemiologic Indicators المؤشرات الوبائية	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

## **2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1501601	Methodological Concepts مفاهيم طرق البحث	3			3	
1501602	Epidemiologic Principles of Communicable Diseases مبادئ وبائية الأمراض المعدية	3			3	
1501603	Epidemiology of Non-Communicable Diseases وبائية الأمراض غير المعدية	2			2	
1501604	Principles of Infection Control أساسيات مكافحة العدوى	2			2	
<b>Total</b>		<b>10</b>			<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1501605	Disaster Epidemiology وبائية الكوارث	2			2	
1501606	Epidemiology of Mental and Behavioral Disorders وبائية الإضطرابات النفسية والسلوكية	2			2	
1501607	Metabolic Diseases Epidemiology وبائية أمراض التمثيل الغذائي	2			2	
1501608	Epidemiology of Blood Borne Infections وبائية العدوى التي تنتقل عن طريق الدم	2			2	
1501609	Using Secondary Data in Research استخدام البيانات الثانوية في البحث	1	2		2	
1501610	Radiation Epidemiology وبائية الإشعاع	2			2	
1502602	Sampling Techniques طرق المعاينة	2	2		3	
1502603	Analytical Statistics الإحصاء التحليلية	2	2		3	
1502605	Non Parametric Analysis الطرق الإحصائية اللامعلمية	1	2		2	

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	<b>Fundamentals of Epidemiology and Biostatistics</b>	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data.			

Code	Credit Hours	Course Title	Prerequisites
150602	2	<b>Fundamentals of Environmental Health</b>	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behaviorial science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1501600	2	Epidemiologic Indicators	
Introduction to epidemiological indicators and its role in health system, The population dimension of the health system (structure, fertility, morbidity and mortality), Health services indicators, Using ICD coding in calculation of epidemiological indicators, Health care programs indicators, Disease outcome (morbidity, mortality and disability), Improving health indicators, Leading health indicators, Using SAS Enterprise Guide, Applications of SAS in retrieval of data, measurement and presentation of epidemiological indicators.			

Code	Credit Hours	Course Title	Prerequisites
1501601	3	Methodological Concepts	
Introduction and definitions, classification of study designs, uses and limitations, observational study designs (descriptive and analytical), intervention study designs, qualitative study designs.			

Code	Credit Hours	Course Title	Prerequisites
1501602	3	Epidemiologic Principles of Communicable Diseases	
Introduction and definitions, pathogenesis, requisites for perpetuation of communicable diseases, strategies for prevention and control, eradication and elimination, pandemics, general principles of surveillance of communicable diseases and investigation of an outbreak.			

Code	Credit Hours	Course Title	Prerequisites
1501603	2	Epidemiology of Non-Communicable Diseases	
Introduction and main definitions in the field of NCDs, magnitude of the problem of NCDs, epidemiologic transition, main common risk factors for NCDs, epidemiology of the most common NCDs, prevention and control: concepts and strategies, prevention and control programs.			

Code	Credit Hours	Course Title	Prerequisites
1501604	2	Principles of Infection Control	
Magnitude of the problem of health care associated infections, Standard precautions: hand hygiene, use of personal protective equipment, sterilization and disinfection, waste management, environmental infection control, principles of infection control in special settings, nosocomial infection control program.			

Code	Credit Hours	Course Title	Prerequisites
1501605	2	Disaster Epidemiology	
Disaster definitions, the difference between disaster medicine and emergency medicine, classification of disaster, global impact of disaster; mortality, morbidity and economic losses, causation of disaster, sociologic aspects of disasters, effect of disaster on human being and community, time factor, management of disaster and national and international measures to combat disaster.			

Code	Credit Hours	Course Title	Prerequisites
1501606	2	Epidemiology of Mental and Behavioral Disorders	
Definitions, etiology of mental disorders, predisposing factors for behavioral disorders, burden of mental and behavioral disorder, impact of mental disorders, integration of mental health into the peripheral level and epidemiology and prevention of specific mental disorders (depressive disorders, substance abuse disorders).			

Code	Credit Hours	Course Title	Prerequisites
1501607	2	Metabolic Diseases Epidemiology	
Magnitude of the problem of the most prevalent metabolic disease in terms of morbidity and mortality statistics, epidemiology of the most prevalent metabolic diseases in terms of risk factors, clinical manifestations, diagnosis and preventive & control measures, examples of the most prevalent metabolic diseases (diabetes mellitus, thyroid gland malfunction, rheumatoid arthritis, obesity and gout) and strategies for prevention and control of the selected diseases.			

Code	Credit Hours	Course Title	Prerequisites
1501608	2	Epidemiology of Blood Borne Infections	
Epidemiology and current situation (national & international) of BBP, different components of HIV/AIDS counseling, screening, diagnosis, treatment and prevention of BBP, discussion of policy implications and intervention strategies, national and international BBP control programs.			

Code	Credit Hours	Course Title	Prerequisites
1501609	2	Using Secondary Data in Research	
The wealth of secondary data, Designing secondary analysis, Accessing and handling survey data, Analyzing survey data, Reporting and interpretation.			

Code	Credit Hours	Course Title	Prerequisites
1501610	2	Radiation Epidemiology	
The course covers the epidemiology of radiation exposure from natural and artificial sources at various levels of the electromagnetic spectrum, basic principles of radiation biology at the population level, protective measures and radiation protection basics.			

Code	Credit Hours	Course Title	Prerequisites
1502602	3	Sampling Techniques	
The concept of sampling, sampling distributions, parameters and statistics, central limit theorem, types of samples and sampling error, complex samples, the normal distribution and estimation of a population parameter from a sample, determination of the minimum required sample size.			

Code	Credit Hours	Course Title	Prerequisites
1502603	3	Analytical Statistics	
Measures of central tendency, Measures of dispersion, Measures of skewness and kurtosis, A single population mean, Difference between 2 population means, Paired comparison, A single population proportion, Difference between 2 population proportions, A single population variance, Chi-squared test and measures of association, Simple Correlation and simple linear Regression.			

Code	Credit Hours	Course Title	Prerequisites
1502605	2	Non Parametric Statistics	
Parametric vs. non parametric statistics, Hypothesis testing, Goodness of fit, Confidence interval, K-S technique, Wilcoxon rank sum test, Mann whitney test, Wilcoxon matched pair, Signed rank test, Kruskal-Wallis test, Friedman test, Non parametric measures of correlation (Spearman and Kendall's rank correlations), Non-parametric regression.			

## **2- Diploma in Public Health (Majoring Biostatistics)**

*Students should fulfill a total of 26 credit hours*

### **1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 150605, 1502601

### **2- Compulsory courses: 10 credit hours.**

1502602, 1502603, 1502604, 1502605

### **3- Elective courses: 6 credit hours.**

1502606, 1502607, 1502608, 1502609

### **1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1502601	Health Indicators المؤشرات الصحية	1	2		2	
<b>Total</b>		<b>8</b>	<b>2</b>	<b>4</b>	<b>10</b>	

### **2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1502602	Sampling Techniques طرق المعاينة	2	2		3	
1502603	Analytical Statistics الاحصاء التحليلية	2	2		3	
1502604	Demography علم السكان	1	2		2	
1502605	Non Parametric Analysis الطرق الإحصائية اللاعلمية	1	2		2	
<b>Total</b>		<b>6</b>	<b>8</b>		<b>10</b>	

### 3- Elective courses: 6 credit hours

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1502606	Time series Analysis      تحليل السلاسل الزمنية		2		2	
1502607	Registration of Vital Events تسجيل الاحداث الحيوية	1	2		2	
1502608	Statistical Application Using Excel Software التطبيقات الاحصائية لبرنامج اكسل	1	2		2	
1502609	Statistics and Study Design الاحصاء و نوع الدراسة	1	2		2	
1502610	Principles of Statistical Inference مبادئ الاستدلال الإحصائي	1	2		2	

### Course Description

Code	Credit Hours	Course Title	Prerequisites
150601	2	<b>Fundamentals of Epidemiology and Biostatistics</b>	

Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data

Code	Credit Hours	Course Title	Prerequisites
150602	2	<b>Fundamentals of Environmental Health</b>	

Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.

Code	Credit Hours	Course Title	Prerequisites
150603	2	<b>Fundamentals of Health Administration &amp; Behavioral Sciences</b>	

This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.



Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1502601	2	Health Indicators	
This course enables the students to define the criteria of a good indicator , use and calculate different morbidity, mortality and socioeconomic indicators			

Code	Credit Hours	Course Title	Prerequisites
1502602	3	Sampling Techniques	
The concept of sampling, sampling distributions, parameters and statistics, central limit theorem, types of samples and sampling error, complex samples, the normal distribution and estimation of a population parameter from a sample, determination of the minimum required sample size.			

Code	Credit Hours	Course Title	Prerequisites
1502603	3	Analytical Statistics	
Measures of central tendency, Measures of dispersion, Measures of skeweness and kurtosis, A single population mean, Difference between 2 population means, Paired comparison, A single population proportion, Difference between 2 population proportions, A single population variance, Chi-squared test and measures of association, Simple Correlation and simple linear Regression.			

Code	Credit Hours	Course Title	Prerequisites
1502604	2	Demography	
Some demographic fundamentals, The measurement of mortality, Standardization of rates, Population pyramids, The life table, The analysis of marriage, The measurement of fertility, Population growth, The analysis of migration, Population projection and population dynamics.			

Code	Credit Hours	Course Title	Prerequisites
1502605	2	Non Parametric Statistics	
Parametric vs. non parametric statistics, Hypothesis testing, Goodness of fit, Confidence interval, K-S technique, Wilcoxon rank sum test, Mann whitney test, Wilcoxon matched pair, Signed rank test, Kruskal-Wallis test, Friedman test, Non parametric measures of correlation (Spearman and Kendall's rank correlations), Non-parametric regression.			

Code	Credit Hours	Course Title	Prerequisites
1502606	2	Time Series Analysis and its Applications	
Classification of time series movement, Analysis of time series, Estimation of trend, Estimation of seasonal variation and seasonal index, Estimation of cyclical variations, Estimation of irregular or random variations, Forecasting, Use of modern statistical models (autoregressive integrated moving average model) to analyze and fit time series data.			

Code	Credit Hours	Course Title	Prerequisites
1502607	2	Registration of Vital Event	
Birth registration, Death registration, Cause of death, International form of medical certificate of cause of death, Underlying cause of death, Procedures for selection of the underlying cause of death for mortality tabulation, Rules for selection of the originating antecedent cause, Considerations and examples of the general principle and selection rules, Modification of the selected cause.			

Code	Credit Hours	Course Title	Prerequisites
1502608	2	Statistical Application Using Excel Software	
Introduction to computers, Excel Basics and database tools, Additional data entry techniques & using functions, Moving/copying data & formatting, Spreadsheet design & printing, Statistical analysis of the data, Charting Data with Graphs.			

Code	Credit Hours	Course Title	Prerequisites
1502609	2	Statistics and Study Design	
The different types of study designs (Cross-sectional, case-control, cohort and clinical trials) and the appropriate statistical analyses used for each.			

### **3- Diploma in Public Health (Majoring Parasitology and Medical Entomology)**

*Students should fulfill a total of 26 credit hours*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604. 1503600

**2- Compulsory courses: 10 credit hours.**

1503(1)601, 1503(1)602, 1503(1)603, 1503(1)604, 1503(1)605

**3- Elective courses: 6 credit hours.**

1503(1)606, 1503(1)607, 1503(1)608, 1503(1)609, 1503(1)610, 1503(1)611, 1501605, 1502602, 1502603, 1503(3)602, 1506601, 1507600, 1508(3)601, 1508600.

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1503600	Tropical Health صحة المناطق الحارة	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

**2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1503(1)601	Basics of Helminthology أساسيات علم الديدان الطفيلية	1	2		2	
1503(1)602	Basics of Protozoology أساسيات علم الطفيليات وحيدة الخلية	1	2		2	
1503(1)603	Basics of Medical Entomology أساسيات علم الحشرات الطبية	1	2		2	
1503(1)604	Basics of Diagnostic Parasitology أساسيات تشخيص الطفيليات	1	2		2	
1503(1)605	Basics of Parasitic Immunology أساسيات المناعة ضد الطفيليات	2			2	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1503(1)606	Basics of Parasitic Zoonoses أساسيات الطفيليات المشتركة	2			2	
1503(1)607	Emerging and Opportunistic Parasites الطفيليات الانتهازية والناشئة	1	2		2	
1503(1)608	Introduction to Parasite and Vector Ecology. مقدمة للطفيليات وبيولوجية ناقل المرض	2			2	
1503(1)609	Basics of Molecular Parasitology. أساسيات الطفيليات الجزيئية	1	2		2	
1503(1)610	Basics of Parasitology & Medical Entomology أساسيات الطفيليات والحشرات الطبية	1	2		2	
1503(1)611	Basics of Malacology أساسيات علم القواقع	1	2		2	
1501605	Disaster Epidemiology وبائية الكوارث	2			2	
1502602	Sampling Techniques طرق المعاينة	2	2		3	
1502603	Analytical Statistics الاحصاء التحليلية	2	2		3	
1503(3)602	Comprehensive Vector Control and Applications المكافحة الشاملة لناقلات الأمراض وتطبيقاتها	1	2		2	
1506601	Environmental Evaluation and Management Tools أدوات تقييم وإدارة البيئة	2			2	
1507600	Principles of Nutrition مبادئ التغذية	2			2	
1508(3)601	Basics of Health Education and Health Promotion أساسيات التثقيف الصحي و تعزيز الصحة	2			2	
1508600	Principles of Family Health مبادئ صحة الأسرة	2			2	

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## **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1503600	2	Tropical Health	
Introduction to Tropical environment and major tropical diseases. Environmental impact and host-agent interactions on emergence and re-emergence of Tropical diseases. An introduction to medically important helminths and protozoa especially those prevalent in Egypt. The morphology, life cycle, transmission routes, diagnosis, prevention and control of chosen parasites. Introduction to medically important members of phylum Arthropoda, their biology, public health importance, and control. Laboratory Identification of these parasites and their ova or oocysts using common laboratory techniques and identification of common vectors. Definitions and objectives of vector control, pesticide classification, formulation, states of application. Impacts of exposure to pesticides on human health and recommendations for vector management and control. Primary health care (PHC) definitions, principles and team organization. Role of PHC in endemic and communicable disease control and community participation in health surveys.			

Code	Credit Hours	Course Title	Prerequisites
1503(1)601	2	Basics of Helminthology	
Introduction to parasitology, classification of the most common medically important helminthes. Morphological features. Intestinal, tissue and blood trematodes. Intestinal and tissue cestodes. Intestinal and tissue nematodes. The life cycles of the parasites, their public health importance, geographical distribution, transmission routes, pathogenesis, clinical manifestations, diagnosis, prevention and control.			

Code	Credit Hours	Course Title	Prerequisites
1503(1)602	2	Basics of Protozoology	
Classification of protozoa that infect humans. Morphological features, geographical distribution, life cycles, methods of transmission, host-parasite interactions, pathogenesis, clinical manifestations, diagnosis, and treatment of the most common medically important protozoa. Appropriate interventions for prevention and control.			

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>1503(1)603</b>	<b>2</b>	<b>Basics of Medical Entomology</b>	<b>-</b>
Taxonomy, anatomy and morphology of arthropods. Mechanisms of pathogen transmission. Important medical and veterinary insects: Life history, ecology, behavior, and disease transmission, prevention and control of the most important members of medically important families.			

Code	Credit Hours	Course Title	Prerequisites
1503(1)604	2	Basics of Diagnostic Parasitology	
Parasitological samples collection, macroscopic examination and preservation of stool and urine samples. Techniques used for identification of diagnostic stages and estimation of worm burdens. Blood samples collection and examination for blood parasites. In addition, examination of sputum, CSF, and tissues as tissue impressions, biopsy and aspirate, as well as culture methods and animal inoculation. The most common immunodiagnostic techniques for the diagnosis of parasitic antigens or antibodies.			

Code	Credit Hours	Course Title	Prerequisites
1503(1)605	2	Basics of Parasitic Immunology	
Introduction to the principles of immunology as molecular nature of antigens, molecular basis of antibody and T-cell receptor structure and diversity, complements, hypersensitivity reactions, cellular basis for immune response, cell-mediated immunity, cytokines and other soluble mediators, major histo-compatibility complex (MHC), mechanism of resistance, tolerance, autoimmunity and immuno- deficiency. Application of these principles in the field of medical parasitology to demonstrate the different types of immune responses elicited by parasites and the mechanisms used by parasites to avoid/exploit the immune response.			

Code	Credit Hours	Course Title	Prerequisites
1503(1)606	2	Basics of Parasitic Zoonoses	
Definitions and classification of parasitic zoonoses, description of the most important groups of zoonotic parasites, their general morphology, routes of transmission, epidemiology and identification of risk factors, and the role of animals in transmission. Basic principles of disease prevention and control measures.			

Code	Credit Hours	Course Title	Prerequisites
1503(1)607	2	Emerging and Opportunistic Parasites	
The life cycle and characteristics of emerging and opportunistic parasitic disease agents according to their principal transmission routes, diagnosis and management. Study the dynamic relationships between parasites, their hosts and the environment. Epidemics of new and old infectious diseases that periodically emerge and greatly magnify the global burden of infections.			

Code	Credit Hours	Course Title	Prerequisites
1503(1)608	2	Introduction to Parasite and vector Ecology	
The principles of ecology, parasite populations, dispersal, growth, and regulation. Adaptations for transmission. Habitats and niches. Host location and host-parasite relationships focusing on biological and mechanical parasitic control to save the environment.			

Code	Credit Hours	Course Title	Prerequisites
1503(1)609	2	Basics of Molecular Parasitology	
Basic understanding of nucleic acids, gene expression and protein synthesis. The principles undermining important techniques in molecular biology and the applications of these techniques in laboratory research in the field of parasitic diseases.			

Code	Credit Hours	Course Title	Prerequisites
1503(1)610	2	Basics of Parasitology and Medical Entomology	
The morphology and the life cycles of the major helminth and protozoal parasites and of their vectors or intermediate hosts. The epidemiology, the pathogenesis, clinical manifestations, diagnosis and treatment as well as the methods available for prevention and control. Taxonomy and diagnostic morphology of medically important arthropods, their Life cycles, ecology, behavior, and disease transmission, prevention and control.			

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>1503(1)611</b>	<b>2</b>	<b>Basics of Malacology</b>	
The course covers the African fresh water snails of medical importance, their taxonomy, morphology, anatomy and systematics. Identification of snail by shell morphology, radula and soft anatomy especially genitalia, chromosome count on ovotestis and embryonic tissues, chromatograms of surface mucus, electrophoresis of muscles and egg protein. Biology of snails and compatibility between parasite and snail intermediate host, habitats, behavior, population dynamics and the various factors affecting them. The different strategies used for their prevention and control.			

Code	Credit Hours	Course Title	Prerequisites
1501605	2	Disaster Epidemiology	
Disaster definitions, the difference between disaster medicine and emergency medicine, classification of disaster, global impact of disaster; mortality, morbidity and economic losses, causation of disaster, sociologic aspects of disasters, effect of disaster on human being and community, time factor, management of disaster and national and international measures to combat disaster.			



Code	Credit Hours	Course Title	Prerequisites
1502602	3	Sampling Techniques	
The concept of sampling, sampling distributions, parameters and statistics, central limit theorem, types of samples and sampling error, complex samples, the normal distribution and estimation of a population parameter from a sample, determination of the minimum required sample size.			

Code	Credit Hours	Course Title	Prerequisites
1502603	3	Analytical Statistics	
Measures of central tendency, Measures of dispersion, Measures of skeweness and kurtosis, A single population mean, Difference between 2 population means, Paired comparison, A single population proportion, Difference between 2 population proportions, A single population variance, Chi-squared test and measures of association, Simple Correlation and simple linear Regression.			

Code	Credit Hours	Course Title	Prerequisites
1503(3)602	2	Comprehensive Vector Control and Applications	
Preliminary Course: Introduction – Vector control interventions including principles and application of biological, environmental, genetic, behavioral, and chemical methods of control to reduce the incidence of vector borne disease – Principal methods of pesticides applications – Components of application equipment – Demonstration of different types of equipment and practical field of use such equipment.			

Code	Credit Hours	Course Title	Prerequisites
1506601	2	Environmental Evaluation and Management Tools	
Environmental regulations, environmental risk assessment (ERA), life cycle assessment (LCA), environmental impact assessment (EIA), design for environment, etc...			

Code	Credit Hours	Course Title	Prerequisites
1507600	2	Principles of Nutrition	
The course aims at giving the student the knowledge about the required nutrients and their functions, recommended intakes, and dietary sources to maintain normal growth and sustain life of individuals. Also this course aims at giving the student the knowledge about principles of food analysis and food hygiene by giving knowledge about the determination of macro and micronutrients of food components and safe handling of foods and their importance in preventing the occurrence of food borne diseases.			

Code	Credit Hours	Course Title	Prerequisites
1508(3)601	2	Basics of Health Education and Health Promotion	
This course provides students with understanding of principles of health education and provides knowledge about health education practice, concept, tools, and application of health education in different settings. The course emphasizes intersectoral collaboration. It covers the rational moving from health education to health promotion and contribution of behavioral sciences to health promotion, health promotion principles and practice. Health promoters and their roles, community health promotion programs, models of health promotion, context of health promotion, agents of the health promotion matrix.			

Code	Credit Hours	Course Title	Prerequisites
1509600	2	Principles of Family Health	
This course is designed to provide the students with the key theoretical frameworks relevant to understanding the concept of family health and the major social, cultural, biological and environmental factors influencing it. Students will be able to understand types of families and stages of family evolution. Student will require knowledge on the services available to all family members relevant to their ages.			

## **4- Diploma in Public Health (Majoring Tropical Health)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604. 1503600

**2- Compulsory courses: 10 credit hours.**

1503(2)601, 1503(2)602, 1503(2)603, 1503(2)604

**3- Elective courses: 6 credit hours.**

1503(2)605, 1503(2)606, 1503(2)607, 1503(2)608, 1503(2)609, 1503(2)610, 1503(2)611

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1503600	Tropical Health صحة المناطق الحارة	1	2		2	
<b>Total</b>		<b>8</b>	<b>2</b>	<b>4</b>	<b>10</b>	

**2- Compulsory courses: 14 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1503(2)601	Endemic Diseases in Egypt الأمراض المتوطنة في مصر	2	2		3	
1503(2)602	Non-Communicable Tropical Diseases أمراض المناطق الحارة غير المعدية	1	2		2	
1503(2)603	Pediatric Tropical Health صحة الأطفال في المناطق الحارة	2	2		3	
1503(2)604	Control of Health Problems in the Tropics التحكم في المشاكل الصحية في المناطق الحارة	2			2	
<b>Total</b>		<b>7</b>	<b>6</b>		<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1503(2)605	Blood-Borne Diseases الأمراض التي تنتقل عن طريق الدم	2			2	
1503(2)606	Tropical Viral Diseases الأمراض الفيروسية في المناطق الحارة	2			2	
1503(2)607	Tropical Bacterial Diseases الأمراض البكتيرية في المناطق الحارة	2			2	
1503(2)608	Tropical Parasitic Diseases of Public health importance الأمراض الطفيلية ذات الأهمية للصحة العامة	2			2	
1503(2)609	Food and Water-borne Diseases الأمراض التي تنتقل عبر الماء و الطعام	2			2	
1503(2)610	Neglected Tropical Diseases أمراض المناطق الحارة المهملة	2			2	
1503(2)611	Health in Disasters and Refugee Health الصحة في الكوارث و صحة اللاجئين	2			2	

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1503600	2	Tropical Health	
Introduction to Tropical environment and major tropical diseases. Environmental impact and host-agent interactions on emergence and re-emergence of Tropical diseases. An introduction to medically important helminths and protozoa especially those prevalent in Egypt. The morphology, life cycle, transmission routes, prevention and control of chosen parasites. Introduction to medically important members of phylum Arthropoda, their biology, public health importance, and control. Laboratory Identification of these parasites and their ova or oocysts using common laboratory techniques and identification of common vectors. Definitions and objectives of vector control, pesticide classification, formulation, states of application. Impacts of exposure to pesticides on human health and recommendations for vector management and control. Primary health care (PHC) definitions, principles and team organization. Role of PHC in endemic and communicable disease control and community participation in health surveys.			

Code	Credit Hours	Course Title	Prerequisites
1503(2)601	3	Endemic Diseases in Egypt	
Epidemiology, Causes, Clinical pictures, Diagnosis, Management, Prevention and Control of major endemic diseases in Egypt. These diseases include schistosomiasis, typhoid fever, hepatitis, chicken pox, streptococcal infections, tetanus, rabies, meningitis and others.			

Code	Credit Hours	Course Title	Prerequisites
1503(2)602	2	Non-Communicable Tropical Diseases	
The non communicable diseases of public health importance in tropical countries including cardiovascular diseases, diabetes mellitus, anemia, and others. Etiology, risk factors, diagnosis, treatment, and methods of prevention and control.			

Code	Credit Hours	Course Title	Prerequisites
1503(2)603	3	Pediatric Tropical Health	
Overview all paediatric diseases with special emphasis on health problems encountered among children in the tropics; identification of the most important infections in the tropics affecting children as regards; epidemiology, clinical picture, diagnosis, prevention, and control, recognition of vaccine preventable diseases, with special attention on the compulsory vaccination program implemented in Egypt.			

Code	Credit Hours	Course Title	Prerequisites
1503(2)604	2	Control of Health Problems in the Tropics	
Concepts of disease prevention and control with special reference to developing countries. Assessment of community needs and provision of basic preventive services to design a control program. The cause focuses on the socio-economic, cultural and political factors that greatly influence the spread distribution and outcome of diseases as well as the interventional prevention and control programs of various infectious and non-infectious health problems in the tropics. How to setup a surveillance system for different diseases with different epidemiological backgrounds. Outbreak investigation and social studies adopted to assess the challenge of significant determinants of tropical health problems and final optimal solutions.			

Code	Credit Hours	Course Title	Prerequisites
1503(2)605	2	Blood-Borne Diseases	
Blood and blood products used for transfusion, indications of blood transfusion, blood processing for transfusion, measures for blood safety, epidemiology, diagnosis, and management of different infectious agents transmitted by transfusion including Viruses as (HIV, HTLV, HBV, HCV, HDV, CMV, EBV..), parasites as (malaria, trypanosoma, babesiosis, toxoplasma, leishmania), and bacteria as (treponema pallidum, brucella, rickettsia).			

Code	Credit Hours	Course Title	Prerequisites
1503(2)606	2	Tropical Viral Diseases	
The course will provide an overview on the basics of viral infection including pathogenesis and virulence factors as well as the host-virus relationship. Viruses in the Tropics will be stressed upon and be taught in details. Emerging and re-emerging viruses will also be included.			

Code	Credit Hours	Course Title	Prerequisites
1503(2)607	2	Tropical Bacterial Diseases	
The course will provide an overview on the basics of bacterial infection including epidemiology, pathogenesis and virulence factors as well as the host-bactrium relationship.			
Diseases caused by gram-positive and negative bacteria, actinomycetes, mycobacteria, spirochaetes, rickettsiae, and chlamydiae. Clinical picture, diagnosis, antimicrobial therapy, and control.			

Code	Credit Hours	Course Title	Prerequisites
1503(2)608	2	Tropical Parasitic Diseases of Public Health Importance	
The course will provide an overview on the basics of parasitic infection including epidemiology, pathogenesis and virulence factors as well as the host-parasite relationship. Overview of protozoal and helminthic diseases of public health importance as leishmaniasis, malaria, amebiasis, schistosomiasis, and others.			

Code	Credit Hours	Course Title	Prerequisites
1503(2)609	2	Food and Water-borne Diseases	
Discusses Diseases linked to food and water including intoxicants and infections, and prevention and control of food and water-borne diseases. Topics include transmission of disease via food and water, disease processes in food- and water-related illness, microbial toxins, mycotoxins, chemical toxins, bacterial infections (salmonellosis, shigellosis, vibrio, listeria, etc.) virus and parasitic infections.			

Code	Credit Hours	Course Title	Prerequisites
1503(2)610	2	Neglected Tropical Diseases	
Study neglected tropical diseases which are considered a symptom of poverty and disadvantage. Those most affected are the poorest populations often living in remote, rural areas, urban slums or in conflict zones. With little political voice, neglected tropical diseases have a low profile and status in public health priorities. Examples of these diseases are leprosy, lymphatic filariasis, onchocerciasis, schistosomiasis, soil-transmitted helminthes.			

Code	Credit Hours	Course Title	Prerequisites
1503(2)611	2	Health in Disasters and Refugee Health	
Types of disasters, different health problems appearing in disasters and their causes, control of these problems, health problems in refugee camps, surveillance, management and control.			

## **5- Diploma in Public Health (Majoring Vector Control and Pesticide Risks)**

*Students should fulfill a total of 26 credit hours*

### **1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1503600

### **2- Compulsory courses: 10 credit hours.**

1503(3)601, 1503(3)602, 1503(3)603, 1503(3)604, 1503(3)605

### **3- Elective courses: 6 credit hours.**

1503(3)621, 1503(3)622, 1503(3)623, 1503(3)624, 1503(3)625, 1503(3)626

### **1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1503600	Tropical Health صحة المناطق الحارة	1	2		2	
<b>Total</b>		<b>8</b>	<b>2</b>	<b>4</b>	<b>10</b>	

### **2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1503(3)601	Vectors and Public Health. ناقلات الأمراض و الصحة العامة	1	2		2	
1503(3)602	Comprehensive Vector Control and Applications المكافحة الشاملة لناقلات الأمراض وتطبيقاتها	1	2		2	
1503(3)603	Chemistry, Classification and Formulation of Pesticides, and Their Mode of Action كيمياء و تصنيف, وتجهيز المبيدات وطريقة تأثيرها	1	2		2	
1503(3)604	Pesticides Residues and Their Environmental Impact. متبقبات المبيدات وأثرها البيئي	2			2	
1503(3)605	Pesticides Bioassay, Resistance and Selectivity التقييم الحيوي ومقاومة واختيارية المبيدات	1	2		2	
<b>Total</b>		<b>6</b>	<b>8</b>		<b>10</b>	



### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1503(3)621	New Trends in the Field of Vector Control. التوجهات الحديثة في مجال مكافحة ناقلات الأمراض	2			2	601,602
1503(3)622	General Toxicology of Pesticides علم سمية المبيدات العام.	2			2	603
1503(3)623	Fate of Pesticides in the Environment. مصير المبيدات في البيئة.	2			2	603,604
1503(3)624	Integrated Vector/Pest Management. إدارة مكافحة المتكاملة.	2			2	601,602
1503(3)625	Vector Ecology and Behavior. تبيؤ وسلوك ناقلات الأمراض.	2			2	601
1503(3)626	Principles of Pesticide Risk Assessment Analysis and Management. أساسيات تقييم وتحليل وإدارة مخاطر المبيدات.	2			2	603,604

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	<b>Fundamentals of Epidemiology and Biostatistics</b>	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	<b>Fundamentals of Environmental Health</b>	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1503600	2	Tropical Health	
Introduction to Tropical environment and major tropical diseases. Environmental impact and host-agent interactions on emergence and re-emergence of Tropical diseases. An introduction to medically important helminths and protozoa especially those prevalent in Egypt. The morphology, life cycle, transmission routes, prevention and control of chosen parasites. Introduction to medically important members of phylum Arthropoda, their biology, and public health importance. Laboratory Identification of these parasites and their ova or oocysts using common laboratory techniques and identification of common vectors. Definitions and objectives of vector control, pesticide classification, formulation, states of application. Impacts of exposure to pesticides on human health and recommendations for vector management and control. Primary health care (PHC) definitions, principles and team organization. Role of PHC in endemic and communicable disease control and community participation in health surveys.			

Code	Credit Hours	Course Title	Prerequisites
1503(3)601	2	Vectors and Public Health	
Preliminary Course: Introduction - Definition of vector - Relation of vectors to other animals – Taxonomy and morphology of vectors of public health importance - Life cycle of important vectors - Role of vectors in public health - Practical laboratory identification and breeding of important vectors of diseases.			

Code	Credit Hours	Course Title	Prerequisites
1503(3)602	2	Comprehensive Vector Control and Applications	
Preliminary Course: Introduction – Vector control interventions including principles and application of biological, environmental, genetic, behavioral, and chemical methods of control– Principal methods of pesticides applications – Components of application equipment – Demonstration of different types of equipment and practical field of use such equipment.			

Code	Credit Hours	Course Title	Prerequisites
1503(3)603	2	Chemistry, Classification and Formulation of Pesticides, and Their Mode of Action	
Preliminary Course: Introduction - Definition of pesticides - General characteristics of the ideal pesticides - Classification of pesticides according to their chemical structure including, insecticides, molluscicides, herbicides and rodenticides....etc. Chemical and physical properties of different pesticides. Classification of different pesticides according to their modes of action. Modes of actions of different types and classes of pesticides. Types of formulations and preparations - Importance of diluents. Demonstration in the laboratory for different formulations and preparations and evaluation of stability of the preparations.			

Code	Credit Hours	Course Title	Prerequisites
1503(3)604	2	Pesticide Residues and Their Environmental Impact	
Introduction – Environmental alteration of pesticides residues – Dynamics of pesticides movement in the animal body – Movement of pesticides in the environment – Effects of pesticides on wild life and non-target species – Recent techniques used for determination of pesticides residues – Protection of the environment.			

Code	Credit Hours	Course Title	Prerequisites
<b>1503(3)605</b>	<b>2</b>	<b>Pesticides Bioassay, Resistance and Selectivity</b>	
Preliminary Course: Introduction - Principles of pesticides testing - Standardization of test organisms for bioassay - Demonstration in the laboratory for testing pesticides against different vectors - Factors influencing pesticide dynamics in animals and insects - Vertebrate selectivity ratios and their significance - Selectivity at species level - Resistance as an acquired character - Types of resistance - Genetics and resistance - Cross resistance - Causes of resistance - How to avoid resistance - Practical laboratory tests of selectivity and resistance towards pesticides in different species			

Code	Credit Hours	Course Title	Prerequisites
<b>1503(3)621</b>	<b>2</b>	<b>New Trends in the Field of Vector Control</b>	<b>601,602</b>
Genomics – Genetics manipulation – Space technology and GIS - Biological control - Environmental management - Community participation and health education – Economics of vector control strategies for controlling tropical disease.			

Code	Credit Hours	Course Title	Prerequisites
<b>1503(3)622</b>	<b>2</b>	<b>General Toxicology of Pesticides.</b>	<b>603</b>
Definitions of toxicology – Different fields of toxicology - Classification of different types of pesticides according to their mode of action - Anatomy and biochemistry of the nervous system in both mammals and insects - Modes of actions of different types and classes of pesticides - Pharmacokinetic phase (penetration, distribution, metabolism & excretion) and pharmacodynamic phase of pesticide toxicology by insects, mammals and microorganisms - Emergency methods and treatment of pesticides toxicity in man.			

Code	Credit Hours	Course Title	Prerequisites
<b>1503(3)623</b>	<b>2</b>	<b>Fate of Pesticides in the Environment</b>	<b>603,604</b>
Introduction - Definition of environmental risk factors - Factors affecting pesticides fate in the environment: (Physical and chemical properties of pesticides, Bio-Accumulation and Bio-Magnification, Adsorption, Absorption, Volatility.) - Natural processes that affect pesticides fate (surface Run off, leaching, soil erosion.....) - Biotransformation of pesticides in water, soil, air, animal bodies, plants and microorganisms - Environmental hazards of pesticide use (pesticides in water, soil and in air). Hazards of pesticides to man and other non target species - Protection in the environment: protecting fish and other aquatic life, protecting birds, wild life and domestic animals.			

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>1503(3)624</b>	<b>2</b>	<b>Integrated Vector/Pest Management</b>	<b>601,602</b>
Introduction – Identification of the vector-borne diseases problem related to the general health situation and planning of comprehensive vector control activities in the prevailing epidemiological and socio-economic situation and the resources available - Demonstration of basic knowledge and skills in vector-borne disease control - Demonstration of basic knowledge and skills in the planning processes be able to contribute to the development of a plan for implementing comprehensive disease control activities - Understanding of data management and analysis relevant to vector-borne disease surveillance and control.			

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>1503(3)625</b>	<b>2</b>	<b>Vector Ecology and Behavior</b>	<b>601</b>
Definition of vector ecology – Bionomics - Methods of collecting ecological data on vectors (Surveys, Intensive ecological studies) - Surveillance techniques - Significant ecological variables - The inter-relationship of ecology and surveillance -Role of ecology in vector control.			

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>1503(3)626</b>	<b>2</b>	<b>Principles of Pesticide Risk Assessment, Analysis and Management</b>	<b>603,604</b>
Introduction- Approaches to risk assessment and analysis - risk analysis categories - Risk measures and indicators - Risk characterization - Assessment residential and occupational exposure to pesticide - Environment and risk. Phenomenological studies ( Acute, chronic, reproductive, developmental toxicity, neurotoxicology and genetic toxicology.) and Mechanistic studies ( Absorption, distribution, metabolism and excretion)			

## **6- Diploma in Public Health (Majoring Primary Health Care)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1503600

**2- Compulsory courses: 10 credit hours.**

1503(4)601, 1503(4)602, 1503(4)603, 1503(4)604

**3- Elective courses: 6 credit hours.**

1503(4)611, 1503(4)612, 1503(4)613, 1503(4)614, 1503(4)615, 1503(4)616, 1503(4)617, 1503(4)618, 1503(4)619, 1503(4)620, 1503(4)621, 1503(4)622.

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1503600	Tropical Health صحة المناطق الحارة	1	2		2	
<b>Total</b>		<b>8</b>	<b>2</b>	<b>4</b>	<b>10</b>	

**2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1503(4)601	Family Medicine Clinic Practices ممارسات عيادة طب الأسرة	2	2		3	
1503(4)602	Internal Medicine and Skin in PHC /FM الأمراض الباطنة والجلدية في الرعاية الصحية الأولية/ طب الأسرة	2	2		3	
1503(4)603	Woman, Child and Family Primary Health Care الرعاية الصحية الأولية للمرأة والطفل والأسرة	1	2		2	
1503(4)604	First Aid, ENT, and Ophthalmological PHC/FM الإسعافات الأولية والأنف والأذن والحنجرة و العيون في الرعاية الصحية الأولية/طب الأسرة	1	2		2	
<b>Total</b>		<b>6</b>	<b>8</b>		<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1503(4)611	Family Sexual and Reproductive Primary Health Care الرعاية الصحية الأولية الجنسية والإنجابية للأسرة	1	2		2	
1503(4)612	PHC /FM Emergencies طوارئ الرعاية الصحية الأولية/ طب الأسرة	1	2		2	
1503(4)613	PHC/FM Clinical Investigations الفحوصات الإكلينيكية للرعاية الصحية الأولية/ طب الأسرة	1	2		2	
1503(4)614	PHC/FM Quality Management إدارة جودة الرعاية الصحية الأولية/ طب الأسرة	1	2		2	
1503(4)615	PHC /FM Socio-psychology and Ethics الرعاية الصحية الأولية/ طب الأسرة النفساجتماعي وأخلاقيات المهنة	1	2		2	
1503(4)616	Essential Drug Provision in PHC/FM توفير العقاقير الأساسية في الرعاية الصحية الأولية/ طب الأسرة	1	2		2	
1503(4)617	Clinical Problem Solving in PHC/FM حل المشاكل إكلينيكية في الرعاية الصحية الأولية/ طب الأسرة	1	2		2	
1503(4)618	Primary Health Care/FM Updates الحديث في الرعاية الصحية الأولية/ طب الأسرة	1	2		2	
1503(4)619	Common Clinical Presentations in PHC/FM الحالات الإكلينيكية الشائعة في الرعاية الصحية الأولية/ طب الأسرة	1	2		2	
1503(4)620	PHC/ FM clinical guidelines الدلائل الإكلينيكية للرعاية الصحية الأولية/ طب الأسرة	1	2		2	
1503(4)621	Age Specific Preventive Family Care الرعاية الأسرية الوقائية للفئات العمرية	1	2		2	
1503(4)622	Basic PHC/FM Patient Safety أسس سلامة مريض الرعاية الصحية الأولية/ طب الأسرة	1	2		2	

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## **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology & Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			



Code	Credit Hours	Course Title	Prerequisites
1503600	2	Tropical Health	
Introduction to Tropical environment and major tropical diseases. Environmental impact and host-agent interactions on emergence and re-emergence of Tropical diseases. An introduction to medically important helminths and protozoa especially those prevalent in Egypt. The morphology, life cycle, transmission routes, prevention and control of chosen parasites. Introduction to medically important members of phylum Arthropoda, their biology, public health importance, and control. Laboratory Identification of these parasites and their ova or oocysts using common laboratory techniques and identification of common vectors. Definitions and objectives of vector control, pesticide classification, formulation, states of application. Impacts of exposure to pesticides on human health and recommendations for vector management and control. Primary health care (PHC) definitions, principles and team organization. Role of PHC in endemic and communicable disease control and community participation in health surveys.			

Code	Credit Hours	Course Title	Prerequisites
1503(4)601	3	Family Medicine Clinic Practices	
Primary health care / family medicine principles and scope. The PHC/ family medicine consultation and counseling session and diagnostic models and skills. Essential health care for different age groups. Problem-based integrated basic health activity packages. Physician communication skills, and patient compliance. Health impacts of family cycle, dynamics and dysfunction including violence. Behavioural change and community involvement in primary care.			

Code	Credit Hours	Course Title	Prerequisites
1503(4)602	3	Internal Medicine and Skin in PHC/FM	
Internal medicine clinical diagnosis and treatment regimens of common diseases in family practice. Holistic primary care management and referral of general internal medical cases. First aid and life saving procedures for medical emergencies. Prevention and control of endemic and communicable medical problems and follow up of chronic diseases. Skin problems diagnosis and management in PHC/FM			

Code	Credit Hours	Course Title	Prerequisites
1503(4)603	2	Woman, Child and Family Primary Health Care	
Pediatric population group: Application of family practice quality guidelines in: (Breast feeding and weaning practices, Monitoring of health, well being, physical and mental development of the child, Integrated management of childhood illness. Early detection and management of acute and chronic pediatric diseases, and handicapping conditions).Pediatric first aid. Women population group: Application of family practice quality guidelines in: (Antenatal, natal and postnatal care. Early detection and management of high risk problems. Family planning methods and counseling. Early detection and management of common gynecological problems). Women first aid.			

Code	Credit Hours	Course Title	Prerequisites
1503(4)604	2	First Aid, ENT and Ophthalmological PHC/FM	
Clinical evaluation of common eye and ENT complaints. Holistic primary management of common ophthalmological, and ENT disorders and/or appropriate referral. Prevention and control of common eye, and ENT health problems. Diagnosis and primary management of common surgical problems and surgical first aid in a PHC/family practice setting. Appropriate and timely referral of surgical problems and emergencies..			

Code	Credit Hours	Course Title	Prerequisites
1503(4)611	2	Family Sexual and Reproductive Primary Health Care	
Commonly encountered familial sexual and reproductive health problems in PHC. Early detection, management and counseling of sexual and reproductive problems through PHC principles. Gender and male involvement in reproductive health.			

Code	Credit Hours	Course Title	Prerequisites
1503(4)612	2	PHC/FM Emergencies	
Emergency life saving procedures and cardiopulmonary resuscitation skills in PHC/FM. Diagnosis, management and/or referral of acute surgical conditions, traumatic emergencies, burns and fractures, Poisoning. Home accidents and injuries.			

Code	Credit Hours	Course Title	Prerequisites
1503(4)613	2	PHC/FM Clinical Investigations	
Basic investigations provided by the PHC/Family health center. PHC laboratory staff. Indices and standards of the PHC laboratory and continuous quality improvement.. Laboratory infection control .Presentation and interpretation of the basic investigations at PHC centers including laboratory, radiology and ECG. Interpretation of results of clinical investigations.			

Code	Credit Hours	Course Title	Prerequisites
1503(4)614	2	PHC/FM Quality Management	
Management of PHC/family practice performance and teamwork, and the identification and solving of PHC management problems (management audit). PHC/family practice information system. Quality management of PHC activities within the scientific definition and principles of PHC/FM. Practical application exercises.			

Code	Credit Hours	Course Title	Prerequisites
1503(4)615	2	PHC/FM Socio-psychology and Ethics	
General medical principles and ethics. Patient's rights and responsibilities. Family physician's duties and responsibilities. Confidentiality. Elements of informed consent. Guidelines about appropriate PHC/FM referral and follow up. Malpractice.			

Code	Credit Hours	Course Title	Prerequisites
1503(4)616	2	Essential Drug Provision in PHC/FM	
Criteria for selection of essential drugs and drugs listing. Problems with drug provision. Development of a national drug policy. Concept of rationale drug use in PHC/FM.			

Code	Credit Hours	Course Title	Prerequisites
1503(4)617	2	Clinical Problem Solving in PHC/FM	
Clinical cases problem solving in PHC/FM. Evidence based clinical diagnostic skills. Diagnostic measures and investigations. Cases management within the holistic context of PHC/FM			

Code	Credit Hours	Course Title	Prerequisites
1503(4)618	2	Primary Health Care/FM Updates	
General and main topics in PHC/FM. Updated studies in common and important topics in PHC/FM.			

Code	Credit Hours	Course Title	Prerequisites
1503(4)619	2	Common Clinical Presentations in PHC/FM	
Differential diagnosis, assessment and management of common presenting clinical problems in PHC/FM. (Weight loss, fatigue, dizziness, TIA, cough, jaundice, edema, pelvic and back pain, headaches, fever, skin lesions, enuresis, drug misuse, seizures irritable bowel syndrome, anemia, and other miscellaneous health problems)			

Code	Credit Hours	Course Title	Prerequisites
1503(4)620	2	PHC/ FM Clinical Guidelines	
Development of clinical guidelines. Appraising the quality of clinical guidelines. International guidelines versus Egyptian guidelines for different medical problems commonly encountered in PHC/FM			

Code	Credit Hours	Course Title	Prerequisites
1503(4)621	2	Age Specific Preventive Family Care	
Age specific preventive family care. Age specific disease presentation and health screening. Immunization practice in PHC/FM. Health promotion and maintenance in PHC/FM			

Code	Credit Hours	Course Title	Prerequisites
1503(4)622	2	Basic PHC/FM Patient Safety	
PHC/FM patient safety principles. PHC/FM patient safety practices			

## **7- Diploma in Public Health (Majoring Microbiology)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1503601

**2- Compulsory courses: 10 credit hours.**

1504601, 1504602, 1504603, 1504604, 1504605, 1504606

**3- Elective courses: 6 credit hours.**

1504607, 1504608, 1504609, 1504610, 1504611, 1504612, 1504613, 1504614, 1504615, 1504616, 1504617

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1504601	Fundamentals of Microbiology أساسيات الميكربولوجيا	1	2		2	
<b>Total</b>		<b>8</b>	<b>2</b>	<b>4</b>	<b>10</b>	

**2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1504602	Fundamentals of Immunology أساسيات المناعة	1	2		2	
1504603	Fundamentals Mycology and Virology أساسيات الفطريات والفيروسات	1	2		2	
1504604	Fundamentals of Sanitary Microbiology أساسيات الميكروبيولوجيا الصحية	1	2		2	
1504605	Infectious Bacteriology البكتريولوجيا المعدية	1	2		2	
1504606	Diagnostic Bacteriology البكتريولوجيا التشخيصية	1	2		2	
<b>Total</b>		<b>5</b>	<b>10</b>		<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1504607	Systematic Virology الفيروسات الجهازية	2			2	
1504608	Viral Laboratory معمل الفيروسات	1	2		2	
1504609	Mycotic Zoonoses الفطريات الحيوانية	2			2	
1504610	Fundamentals of Sanitary Mycology أساسيات الفطريات الصحية	1	2		2	
1504611	Food Microbiology Laboratory معمل ميكروبيولوجيا الأغذية	1	2		2	
1504612	Emerging Pathogens الميكروبات المستجدة	2			2	
1504613	Guidelines in Standard Operating Procedures المبادئ التوجيهية لإجراءات التشغيل النموذجية	1	2		2	
1504614	Laboratory Safety الأمان المعملية	2			2	
1504615	Management of Health Care Associated Infections إدارة العدوى المصاحبة للرعاية الصحية	2			2	
1504616	Methods in Microbial Genetics طرق الوراثة لميكروبية	1	2		2	
1504617	Antimicrobials مضادات الميكروبات	1	2		2	

### **مقرر تكميلي لخريجي كلية العلوم كشرط أساسي قبل التسجيل لدرجة الدبلوم**

Code	Course Title	Theoretical	Practical	Credit Hours	Prerequisites
1504618	Human Body & Medical Terminology جسم الإنسان والمصطلحات الطبية	2		2	

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## **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1504601	2	Fundamentals of Microbiology	
Fundamentals of Microbiology provide students with an understanding of microorganisms and techniques in microbiology. Topics include bacterial cell structure and function, bacterial classification, their metabolism, nutrition, growth and environmental factors affecting growth. It will also include the physical and chemical antimicrobial means of control of microorganisms. The course also includes the basic structure, function and replication of nucleic acids. The laboratory sessions will provide the opportunity to learn how to observe, grow, identify, and examine the activities of microbes.			

Code	Credit Hours	Course Title	Prerequisites
1504602	2	Fundamentals of Immunology	
This course will cover the induction, detection, and measurement of human immune response, as well as the structure and composition of antigens and antibodies, the kinetic of antigen-antibody reactions and their measurement.			

Code	Credit Hours	Course Title	Prerequisites
1504603	2	Fundamentals of Mycology and Virology	
This is a course on human fungal diseases and their corresponding organisms. Emphasis will be on recognition and identification of representative of the pathogens. An overview of the filamentous “higher” bacteria (Actinomycetes & Nocardia) will be covered, as per tradition. Also this course will cover the description, classification, and replication of human viruses and the processes of viral infections, laboratory diagnosis, and prevention and antiviral drugs. Some representatives of viruses of medical importance will be discussed.			

Code	Credit Hours	Course Title	Prerequisites
1504604	2	Fundamentals of Sanitary Microbiology	
This course deals with the standard methods used for determining the sanitary quality of water, food, and milk (suitability for use and degree of contamination). The course also emphasizes the different diseases transmitted through the above common sources.			



Code	Credit Hours	Course Title	Prerequisites
1504605	2	Infectious Bacteriology	
This course aims at recognition of human pathogenic bacteria, their macroscopic and microscopic characters, principles of bacterial pathogenicity, host-parasite interactions, diagnosis, and prevention.			

Code	Credit Hours	Course Title	Prerequisites
1504606	2	Diagnostic Bacteriology	
This subject deals with the manipulation of clinical specimens. It emphasizes the aspects of specimen collection, handling, examination, and interpretation of results.			

Code	Credit Hours	Course Title	Prerequisites
1504607	2	Systematic Virology	
This course will cover the clinical aspects, pathogenesis, epidemiology, prevention and strategies for diagnosis, follow-up and monitoring of viral diseases. The module will deal with the study of major clinical syndromes caused by viruses.			

Code	Credit Hours	Course Title	Prerequisites
1504608	2	Viral Laboratory	
This course is concerned with the most frequently used techniques of detection of viral infection. The cytopathic effects produced by different viruses will be verified besides the serologic and molecular methods used in diagnostic virology.			

Code	Credit Hours	Course Title	Prerequisites
1504609	2	Mycotic zoonoses	
This course is concerned with the major mycotic zoonotic infections transmitted mainly by farm animals and pets.			

Code	Credit Hours	Course Title	Prerequisites
1504610	2	Fundamentals of Sanitary Mycology	
This course deals with the standard methods used for determining the sanitary quality of water, food, and milk in respect to the presence of fungi. The course also emphasizes the different fungal diseases transmitted through the above common sources.			

Code	Credit Hours	Course Title	Prerequisites
1504611	2	Food Microbiology Laboratory	
To provide practical and theoretical knowledge on methods for enumeration, detection and identification of spoilage and pathogenic microorganisms in food, milk and milk products.			

Code	Credit Hours	Course Title	Prerequisites
1504612	2	Emerging Pathogens	
This course provides students with an introduction to the factors involved in the emergence of pathogens causing human disease. Following a general overview of these factors, specific pathogens are examined with regard to historical and current relevance, emergence factors, surveillance, and control.			

Code	Credit Hours	Course Title	Prerequisites
1504613	2	Guidelines in Standard Operating Procedures	
This is course will provide guidelines on the use of conventional procedures used in a microbiological laboratory including the organization and functions of laboratories, collection and transportation of clinical specimens, sterilization, staining techniques, bacteriological media, cultivation of bacteria on laboratory media, antimicrobial susceptibility testing, safety in laboratories, and quality assurance.			

Code	Credit Hours	Course Title	Prerequisites
1504614	2	Laboratory Safety	
This course describes the combinations of standard and special microbiological practices, safety equipment, and facilities constituting Biosafety Levels 1-4, which are recommended for work with a variety of infectious agents in various laboratory settings.			

Code	Credit Hours	Course Title	Prerequisites
1504615	2	Management of Health Care Associated Infections	
This course introduces the history, descriptive epidemiology, surveillance methods, and the most important factors influencing health care associated infections. The role of laboratory in controlling these infections will be emphasized.			

Code	Credit Hours	Course Title	Prerequisites
1504616	2	Methods in Microbial Genetics	
This course will describe the different molecular techniques used in isolation, detection and quantification of nucleic acids.			

Code	Credit Hours	Course Title	Prerequisites
1504617	2	Antimicrobials	
This course introduces the history, the classification, and the mode of action of antimicrobial, the mechanisms of the transfer of antimicrobial resistance among bacterial strains, and the standard methods for testing the susceptibility to antimicrobials.			

Code	Credit Hours	Course Title	Prerequisites
1504618	2	Human Body & Medical Terminology	
This course describes the combinations of standard and special microbiological practices, safety equipment, and facilities constituting Biosafety Levels 1-4, which are recommended for work with a variety of infectious agents in various laboratory settings.			

## **8- Diploma in Public Health (Majoring Occupational Health and Industrial Medicine)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1505601

**2- Compulsory courses: 10 credit hours.**

1505(1)601, 1505(1)602, 1505(1)603, 1505(1)604, 1505(1)605

**3- Elective courses: 6 credit hours.**

1505(1)606, 1505(1)607, 1505(1)608, 1505(1)609, 1505(1)610, 1502708, 1502711

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1505601	Principals of Occupational Health and Air Pollution مبادئ الصحة المهنية وتلوث الهواء	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

## **2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1505(1)601	Principals of Occupational Toxicology & Biological Monitoring مبادئ علم السموم المهنية و التقييم البيولوجي	1	2		2	
1505(1)602	Fundamentals Of Occupational Medicine and Work Physiology أساسيات الطب المهني و فسيولوجيا العمل	1	2		2	
1505(1)603	Introduction to Occupational Psychology مقدمة للصحة النفسية المهنية	2			2	
1505(1)604	Fundamentals Of Occupational Disability and Work Legislation أساسيات العجز المهني و تشريعات العمل	2			2	
1505(1)605	Fundamentals of Occupational Hygiene, Safety and Air Pollution أساسيات إصاح بيئة العمل و السلامة و تلوث الهواء	1	2		2	
<b>Total</b>		<b>7</b>	<b>6</b>		<b>10</b>	

## **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1505(1)606	Occupational Health for Vulnerable Groups الصحة المهنية للمجموعات السريعة التأثر	2			2	
1505(1)607	Occupational Health Problems in Small Underserved Jobs مشاكل الصحة المهنية في المهن الصغيرة الغير مستوفاه للخدمات	2			2	
1505(1)608	Emerging Occupational Health Problems in Developing Countries مشاكل الصحة المهنية المستحدثة في البلاد النامية	2			2	
1505(1)609	Introduction to Ergonomics and Work Biomechanics مدخل الى علم الأيرجونيوميا و الأداء الميكانيكي البشرى للعمل	2			2	
1505(1)610	Occupational Health Services خدمات الصحة المهنية	2			2	
1502708	Statistical Health information system نظم المعلومات الصحية الاحصائية	2			2	
1502711	Data Base 1 قواعد البيانات ١	1	2		2	

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## **Course description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit hours	Course Title	Prerequisites
1505601	2	Principals of Occupational Health and Air Pollution	
An overview of occupational health aspects, its integrated concept of maintaining and promoting workers health through recognition, assessment and control of occupational hazards in work environment and early detection of occupational diseases, their treatment and rehabilitation of workers. In addition to fundamentals of Air pollution, sources, types, monitoring and control technologies.			

Code	Credit hours	Course Title	Prerequisites
1505(1)601	2	Fundamentals Of Occupational Toxicology & Biological Monitoring	
This course provides students the knowledge about important toxicant in the working environment, different routs of exposure and biotransformation inside the body as well as the possible effects on workers health. Also, it introduces the knowledge about biological parameters of exposure and response to industrial toxins used for early detection of any adverse health effect.			

Code	Credit hours	Course Title	Prerequisites
1505(1)602	2	Fundamentals of Occupational Medicine and Work Physiology	
This course provides students with necessary knowledge about some of the most important diseases that could occur due to exposure to different occupational hazards in work environment, principals of management and the important lines of prevention. Also it provides knowledge about the physiological mechanisms and body response to different types of occupational physical hazards.			

Code	Credit hours	Course Title	Prerequisites
1505(1)603	2	Fundamentals of Occupational Psychology	
This course provides students with necessary knowledge about the interaction between psychosocial environment and the individual and most important effects either of working environment on employee and employer, or between workers each other, and how to prevent it. Also it provides knowledge about the criteria of adjustment and equilibrium of workers as well as the indirect indicators of mental ill-health. In addition the course highlights the consequences of fatigue in industry and shift work system on workers.			

Code	Credit hours	Course Title	Prerequisites
1505(1)604	2	Fundamentals of Occupational Disability and Work Legislation	
This course provides students with necessary knowledge about some of the most important occupational disabilities that could occur during work and how to deal with them. Also it provides basics of laws and administrative regulation at work including occupational health program. Moreover the course will provide knowledge about the different Egyptian and international laws and regulations related to workers.			

Code	Credit hours	Course Title	Prerequisites
1505(1)605	2	Fundamentals of Occupational Hygiene, Safety and Air Pollution	
Occupational hygiene pillars, recognition evaluation and control of occupational hazards in working environment. Accident causes and investigation, appraising safety performance, facility inspection job safety analysis. Air pollution sources, air pollution types, meteorology and dispersion, air pollutant monitoring, air quality national and international slanderers.			

Code	Credit hours	Course Title	Prerequisites
1505(1)606	2	Occupational Health for Vulnerable Groups	
This course is directed to study problems among some susceptible groups at work place like women, children, elderly workers, chronic ill-workers...etc. Also it provides knowledge about the specific physiological and anatomical features of these groups and how these specific features can affect and modify the response to different occupational hazards.			

Code	Credit hours	Course Title	Prerequisites
1505(1)607	2	Occupational Health Problems in Small Underserved Jobs	
This course aims at clarification of some occupational health problems in small underserved jobs including seasonal workers, small workshops, agricultural workers, ...etc and how to overcome these problems. Also it provide knowledge about the nature of employment and work environment in such jobs regarding age of employee , lack of medical services, lack of environmental control measures, lack of personal protective equipment as well as lack of occupational health education and training programs.			

Code	Credit hours	Course Title	Prerequisites
1505(1)608	2	Emerging Occupational Health Problems in Developing Countries	
This course focuses on emerging problems that could appear due to changes in labor market and introduction of new industries with related occupational problems in developing countries. Also it provides knowledge about the different measures used to identify such problems , early detection of their effects on workers health, impact on productivity and how to manage these problems.			



Code	credit hours	Course Title	Prerequisites
1505(1)609	2	Introduction to Ergonomics and Work Biomechanics	
This course provides students with necessary knowledge to identify how a worker can physically do his work without ill-effects, and provide introduction to time – motion studies. Also the course will provide knowledge about the importance of anatomical features of workers for performance of specific job and their relation to work design and limitations which may present and how to readjust work place to be ergonomically suitable.			

Code	credit hours	Course Title	Prerequisites
1505(1)610	2	Occupational Health Services	
This course provides students with necessary knowledge about general organizational aspects of any establishment, and study of different concepts for successful organization. In addition it will cover the medical and environmental health services which should be provided to workers and how to prevent abuse of such services. Travel Health program offers required vaccinations, health and safety information, and other helpful resources.			

Code	credit hours	Course Title	Prerequisites
1502708	2	Statistical Health information system	
Definition of terms, Role of statistics in health information systems, Sources of data, Health status indicators, Indicators for provision of health care (provision of primary health care), Indicators of resources for health, Indicators based on hospital statistics.			

Code	credit hours	Course Title	Prerequisites
1502711	2	Data Base 1	
Introduction to computer, Introduction to database, Database Environment, The Relational Model, Database planning and design, Entity Relationship Modeling, Normalization, Database Design Methodology, Worked Examples.			

## **9-Diploma in Public Health and Public Health Sciences** **(Majoring Occupational Hygiene and Air Pollution)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1505601

**2- Compulsory courses: 10 credit hours.**

1505(2)601, 1505(2)602, 1505(2)603, 1505(2)604, 1505(2)605

**3- Elective courses: 6 credit hours.**

1505(2)606, 1505(2)607, 1505(2)608, 1505(2)609, 1505(2)610, 1505(2)611, 1502710, 1502711

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
160603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1505601	Principles of Occupational Health and Air Pollution مبادئ الصحة المهنية وتلوث الهواء	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

## **2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1505(2)601	Fundamental of Occupational Hazards Health Effects اساسيات التأثيرات الصحية للمخاطر المهنية	2			2	
1505(2)602	Principles of Occupational Hazards, its Evaluation, and Control مبادئ المخاطر المهنية - تقييمها والتحكم فيها	1	2		2	
1505(2)603	Applied Occupational Hygiene Training صحة بيئة العمل التطبيقي	1		4	2	1505(2)602
1505(2)604	Principles of Air Pollution مبادئ تلوث الهواء	1	2		2	
1505(2)605	Occupational Health and Safety Legislations تشريعات الصحة والسلامة المهنية	2			2	
<b>Total</b>		<b>7</b>	<b>4</b>	<b>4</b>	<b>10</b>	

## **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1505(2)606	Principles of Occupational Risk Assessment مبادئ تقييم الخطر المهني	2			2	
1505(2)607	Principles of Occupational Safety مبادئ السلامة المهنية	2			2	
1505(2)608	Basics of Biological Monitoring أساسيات المراقبة البيولوجية	1	2		2	
1505(2)609	Control of Occupational Hazards and Air Pollution التحكم في المخاطر المهنية وتلوث الهواء	2			2	
1505(2)610	Principles of Industrial Ventilation مبادئ التهوية الصناعية	2			2	
1505(2)611	Atmospheric Sampling and Analysis of Air Pollutants جمع وتحليل ملوثات الهواء الجوي	1	2		2	
1502707	Applied statistics الإحصاء التطبيقي	1	2		2	
1502711	Data Base 1 قواعد البيانات ١	1	2		2	

## **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1505601	2	Principles of Occupational Health and Air Pollution	
An overview of occupational health aspects, its integrated concept of maintaining and promoting workers health through assessment and control of occupational hazards in work environment and early detection of occupational diseases, their treatment and rehabilitation of workers. In addition to Air pollutants sources, types, monitoring and control technologies.			

Code	Credit Hours	Course Title	Prerequisites
1505(2)601	2	Fundamental of Occupational Hazards Health Effects	
This course provides candidates with the basic knowledge about physiological, biological, toxicological and psychological changes; and the possible health effects and its prevention for the different physical, chemical, biological, psychosocial and mechanical hazards.			

Code	Credit Hours	Course Title	Prerequisites
1505(2)602	2	Principles of Occupational Hazards, its Evaluation, and Control	
This course offers knowledge about occupational hazards sources, types, and control with concentration on physical hazards and chemical hazards. In addition the course provide basis of Evaluation methodologies, instruments and devices used for assessment of occupational hazards. Allowable exposure limits and threshold limit values for different hazards types. Proper control measures and techniques applied to decrease the risks of occupational hazards` exposure.			

Code	Credit Hours	Course Title	Prerequisites
1505(2)603	2	Applied Occupational Hygiene Training	
Candidates will be familiar with different types of hazards which can be found in each type of industry, field visits various to factories or establishments, inspection of the following, occupational hazards; physical, chemical, biological mechanical, occupational safety, emergency care in the workplace, health education in industrial setting, personal protective equipment, fire protection, housekeeping, general ventilation and lighting, engineering control, welfare facilities, group discussion, report writing to include, main hazards available, protective measures available and those need to be implemented, safety precautions, the meaning of injury rates, appraising safety performance, recommendations for control measures and accident prevention techniques.			

Code	Credit Hours	Course Title	Prerequisites
1505(2)604	2	Principles of Air Pollution	
The course provides introduction to air pollution, sources and types of air pollutants, dispersion, classification and sources of air contaminants, atmospheric sampling and analysis: methods and calibration, source sampling and analysis, source-emission inventories, air resources management program, and ambient air quality standards and their application.			

Code	Credit Hours	Course Title	Prerequisites
1505(2)605	2	Occupational Health and Safety Legislations	
The course focuses on safety, health & welfare at work acts, compliance strategies, national regulations and laws concerned with occupational hygiene, safety & air pollution, Minister Of Labor Force And Migration Decision No. 211 for 2003, Egyptian Environmental Law No. 4 for 1994 and its decree no. 338 for 1995.			

Code	Credit Hours	Course Title	Prerequisites
1505(2)606	2	Principles of Occupational Risk Assessment	
The course focuses on scope & benefits of assessing risks, definitions & terminology, hazard identification, dose / response evaluation, risk identification, risk assessment techniques, safety checklists, job safety analysis, qualitative risk assessment, quantitative risk assessment, risk matrix and risk characterization, reporting and risk reduction.			

Code	Credit Hours	Course Title	Prerequisites
1505(2)607	2	Principles of Occupational Safety	
The course focuses on the safety management system, accidents and their contributing factors, accident costs, hazard in workplace, appraising safety performance, accident investigation, facility inspection, housekeeping, job safety analysis, planning and designing of workplace, safe guarding of machinery, electrical safety, fire safety, safe working procedures, promoting safe work practice & behavior, general safety and control procedures, and personal protective equipment.			

Code	Credit Hours	Course Title	Prerequisites
1505(2)608	2	Basics of Biological Monitoring	
Principal and objectives of B.M, Biotransformation and pathway of environmental chemicals, biological analysis data and their interpretation with environmental assessment data, Evaluation of Biological markers of exposure chemicals (Body burden), interrelation of air assessment with biological assessment, Advances in B.M. Metabolism and B.M. of some chemical, Heavy metals, Organic solvents, Quality assurance in biological monitoring, Interpretation and of role biological markers in occupational and environmental health, and the use of biological monitoring in management of health & environmental exposures.			

Code	Credit Hours	Course Title	Prerequisites
1505(2)609	2	Control of Occupational Hazards and Air Pollution	
The course provides a brief listing of occupational hazards and main air pollutants as regards sources, types and acceptable limits, principles of common control measures for occupational hazards, control measures for specific occupational hazards, e. g, gases and vapors, particulate, heat, noise and vibration, control measures for ambient air pollutants, different control technologies for each hazard, and their advantages and disadvantages.			

Code	Credit Hours	Course Title	Prerequisites
1505(2)610	2	Principles of Industrial Ventilation	
The course focuses on principles of industrial ventilation, types of ventilation systems and their design criteria, types of hoods, fans ...etc, capture velocity, selection and maintenance of ventilation systems & air cleaning devices, methods of assessment and revaluation, and design project for a ventilation system.			

Code	Credit Hours	Course Title	Prerequisites
1505(2)611	2	Atmospheric Sampling and Analysis of Air Pollutants	
The course focuses on purpose of atmospheric sampling, source of atmospheric sampling, qualitative and quantitative analysis, sampling procedures, techniques of particulates sampling and analysis, gaseous sampling and analysis, analytical procedures, recommended units for expressing air pollution data and relevant variables (size of sample, rate and duration of sampling, collection limitations, analytical limitation, and competing of results) pertaining to that method.			

Code	Credit Hours	Course Title	Prerequisites
1502707	2	Applied statistics	
This is a course to teach students from different specialties of public health how to analyze data and interpret the results. By the end of the course the student should be able to determine the type of analysis (parametric or non parametric), test the relation between variables using comparison of means, test the hypothesis, test the relation between variables, using various measures of association.			

Code	Credit Hours	Course Title	Prerequisites
1502711	2	Data Base 1	
Introduction to computer, Introduction to database, Database Environment, The Relational Model, Database planning and design, Entity Relationship Modeling, Normalization, Database Design Methodology, Worked Examples.			

## **10- Diploma in Public Health (Majoring Environmental Chemistry and Biology)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1506601

**2- Compulsory courses: 10 credit hours.**

1506602, 1506603, 1506(1)601, 1506(1)602, 1506(1)603

**3- Elective courses: 6 credit hours.**

1506(1)610, 1506(1)611, 1506(1)612, 1506(1)613, 1506(1)614, 150705

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1506601	Environmental Evaluation and Management Tools أدوات تقييم وإدارة البيئة	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

**2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1506602	Principles of Water and Wastewater Treatment مبادئ معالجة المياه والمخلفات السائلة	2			2	
1506603	Principles of Solid and Hazardous Waste Management مبادئ إدارة المخلفات الصلبة والخطرة	2			2	
1506(1)601	Principles of Industrial Cleaner Production مبادئ الإنتاج الصناعي الأنظف	2			2	
1506(1)602	Principles of Water and Wastewater Analysis مبادئ تحليل المياه والمخلفات السائلة	1	2		2	
1506(1)603	Principles of Environmental Biology مبادئ البيولوجيا البيئية	1	2		2	
<b>Total</b>		<b>8</b>	<b>4</b>		<b>10</b>	



### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1506(1)610	Special Studies in Environmental Chemistry and Biology دراسات خاصة في كيمياء وبيولوجيا البيئة	2			2	
1506(1)611	Principles of Environmental Chemistry مبادئ كيمياء البيئة	2			2	
1506(1)612	Quality Assurance and Quality Control in Environmental Laboratories ضمان الجودة والتحكم في معامل البيئة	2			2	
1506(1)613	Principles of Environmental Impact Assessment مبادئ تقييم الأثر البيئي	2			2	
1506(1)614	Principles of Hazardous Waste Management مبادئ إدارة المخلفات الخطرة	2			2	
150705	Ethics and Law for Health Professionals الأخلاقيات والقانون لأفراد الفريق الصحي	2			2	

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology & Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1506601	2	Environmental Evaluation and Management Tools	
The course introduces students to the various methods and tools of environmental management and evaluation, providing them with an introduction to environmental regulations, environmental risk assessment (ERA), life cycle assessment (LCA), environmental impact assessment (EIA), design for environment, etc...			

Code	Credit Hours	Course Title	Prerequisites
1506602	2	Principles of Water and Wastewater Treatment	
Principles of water treatment including coagulation, sedimentation, filtration, disinfection and desalination. Principles of wastewater treatment including primary, secondary and tertiary treatment.			

Code	Credit Hours	Course Title	Prerequisites
1506603	2	Principles of Solid and Hazardous Waste Management	
Definition and sources of solid and hazardous waste, public health impacts of solid and hazardous waste, principles of solid and hazardous waste management including source reduction, collection and transport, composting, recycling treatment and disposal.			

Code	Credit Hours	Course Title	Prerequisites
1506(1)601	2	Principles of Industrial Cleaner Production	
Environmental impacts of industrial activities, basics of cleaner production concept including pollution prevention, pollution reduction, waste treatment and disposal or reuse. Case studies from some industrial sectors.			

Code	Credit Hours	Course Title	Prerequisites
1506(1)602	2	Principles of Water and Wastewater Analysis	
Definition, environmental significance, principle and method of determination of the important parameters involved in the characterization of water and wastewater including solids, BOD, COD, oil and grease, etc.			

Code	Credit Hours	Course Title	Prerequisites
1506(1)603	2	Principles of Environmental Biology	
Ecological systems, microorganisms of importance in the environment, role of microorganisms in wastewater & solid waste management, microbiological standards.			

Code	Credit Hours	Course Title	Prerequisites
1506(1)610	2	Special Studies in Environmental Chemistry and Biology	
The course is composed mainly of seminars prepared by students in environmental chemistry and biology-related issues.			

Code	Credit Hours	Course Title	Prerequisites
1506(1)611	2	Principles of Environmental Chemistry	
Chemical equilibrium in the environment, perturbation of the cycles due to environmental pollution, effects of anthropogenic activities on the cycles of major and minor elements in the environment.			

Code	Credit Hours	Course Title	Prerequisites
1506(1)612	2	Quality Assurance and Quality Control in Environmental Laboratories	
Purpose of quality assurance and quality control, good laboratory records keeping, establishing quality system for laboratories, use of standard operation procedures, choice of analytical methods, validation methods, precision and accuracy monitoring, statistical interpretation of data, preparation of laboratory quality assurance action plan.			

Code	Credit Hours	Course Title	Prerequisites
1506(1)613	2	Principles of Environmental Impact Assessment	
Definition and purposes of EIA, steps of EIA, requirements of an EIA system, approaches to EIA, EIA as an integrated approach to project appraisal, methodology.			

Code	Credit Hours	Course Title	Prerequisites
1506(1)614	2	Principles of Hazardous Waste Management	
Classification of hazardous materials and wastes, international symbols of hazardous materials and wastes, health and safety precautions in hazardous materials and wastes manufacturing; handling; storage; transportation; use; treatment; and disposal, role of health safety and environmental manager.			

Code	Credit Hours	Course Title	Prerequisites
150705	2	Ethics and Law for Health Professionals	
Definitions of ethics, law, risk management and public health will be clarified. Major ethical and legal conflicts in public health will be addressed. Justifying public health programs and policies will be discussed. Human rights and public health will be explained. The course will also tackle understanding of the public health profession's roles and professional values.			

## **11- Diploma in Public Health (Majoring Environmental Engineering)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1506601

**2- Compulsory courses: 10 credit hours.**

1506602, 1506603, 1506(1)601, 1506(2)601, 1506(2)602

**3- Elective courses: 6 credit hours.**

1506(2)610, 1506(2)611, 1506(2)612, 1506(2)613, 1506(2)614, 1506(2)615, 150705

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1506601	Environmental Evaluation and Management Tools أدوات تقييم وإدارة البيئة	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

**2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1506602	Principles of Water and Wastewater Treatment مبادئ معالجة المياه والمخلفات السائلة	2			2	
1506603	Principles of Solid and Hazardous Waste Management مبادئ إدارة المخلفات الصلبة والخطرة	2			2	
1506(1)601	Principles of Industrial Cleaner Production مبادئ الإنتاج الصناعي الأنظف	2			2	
1506(2)601	Principles of Chemistry & Biology for Environmental Engineers مبادئ كيمياء وبيولوجيا البيئية للمهندسين	1	2		2	
1506(2)602	Principles of Design of Water and Wastewater Works مبادئ تصميم أشغال المياه والمخلفات السائلة	1	2		2	
<b>Total</b>		<b>8</b>	<b>4</b>		<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1506(2)610	Principles of Environment & Sustainable Development مبادئ البيئة والتنمية المستدامة	2			2	
1506(2)611	City and Urban Planning تخطيط المدن والحضر	2			2	
1506(2)612	Principles of Stream Sanitation مبادئ إصحاح المجاري المائية	2			2	
1506(2)613	Principles of Energy and the Environment مبادئ الطاقة والبيئة	2			2	
1506(2)614	Principles of Housing and Institutional Sanitation مبادئ إصحاح الإسكان والمؤسسات	2			2	
1506(2)615	Review of Special Topics in Environmental Engineering مطالعة المواضيع الخاصة في الهندسة البيئية	2			2	
150705	Ethics and Law for Health Professionals الأخلاقيات والقانون لأفراد الفريق الصحي	2			2	

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology & Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data.			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1506601	2	Environmental Evaluation and Management Tools	
The course introduces students to the various methods and tools of environmental management and evaluation, providing them with an introduction to environmental regulations, environmental risk assessment (ERA), life cycle assessment (LCA), environmental impact assessment (EIA), design for environment, etc...			

Code	Credit Hours	Course Title	Prerequisites
1506602	2	Principles of Water and Wastewater Treatment	
Principles of water treatment theory and technology including coagulation, sedimentation, filtration, disinfection and desalination. Principles of wastewater treatment including primary, secondary and tertiary treatment.			

Code	Credit Hours	Course Title	Prerequisites
1506603	2	Principles of Solid and Hazardous Waste Management	
Definition and sources of solid and hazardous waste, public health impacts of solid and hazardous waste, principles of solid and hazardous waste management including source reduction, collection and transport, composting, recycling treatment and disposal.			

Code	Credit Hours	Course Title	Prerequisites
1506(1)601	2	Principles of Industrial Cleaner Production	
Environmental impacts of industrial activities, basics of cleaner production concept including pollution prevention, pollution reduction, waste treatment and disposal or reuse. Case studies from some industrial sectors.			

Code	Credit Hours	Course Title	Prerequisites
1506(2)601	2	Principles of Chemistry and Biology for Environmental Engineers	
The course introduces students to the principles of measuring the common water and wastewaters quality indicators and their environmental and public health significance.			

Code	Credit Hours	Course Title	Prerequisites
1506(2)602	2	Principles of Design of Water and Wastewater Works	
Principal of design criteria of water supply engineering, ground water engineering, water treatment plant design, advanced physico-chemical treatment systems, water disinfection techniques, water distribution, wastewater collection, treatment plant and disposal facility design, advanced biological treatment processes, sludge treatment and disposal.			

Code	Credit Hours	Course Title	Prerequisites
1506(2)610	2	Principles of Environment & Sustainable Development	
The course introduces students to the scope and definitions of environmental sustainability, the principals of environmental impacts and mitigation measures of Industry, agriculture, tourism & recreation, households, problems of environmental injustices, and new issues.			

Code	Credit Hours	Course Title	Prerequisites
1506(2)611	2	City and Urban Planning	
The course covers the history of city planning, legal foundations of planning, constraints on city form, principles of environmental design and laying out of city and urban areas, ornamentation of city and urban areas, etc.			



Code	Credit Hours	Course Title	Prerequisites
1506(2)612	2	Principles of Stream Sanitation	
Basics and principals of stream sanitation in terms of sources of pollution, survey, methods of analysis, monitoring, mathematical analysis of stream self-purification capacity, mathematics of BOD, mathematics of oxygen sag curve, restoration of water bodies.			

Code	Credit Hours	Course Title	Prerequisites
1506(2)613	2	Principles of Energy and the Environment	
Basics and principals energy generation technologies and their environmental impacts, using fossil and fissile fuels, geothermic; photosynthetic; and other sources, relationship of fuel cycles with polluting emissions, sources of environmental pollution and electrical power plants, energy conservation and control management.			

Code	Credit Hours	Course Title	Prerequisites
1506(2)614	2	Principles of Housing and Institutional Sanitation	
The course covers the principals of environmental and sanitation standards of housing, governmental and public institutions such as hospitals, schools, universities and hotels. It addresses water supply, sanitary waste disposal, disposal of hazardous waste, ventilation, lighting, etc.			

Code	Credit Hours	Course Title	Prerequisites
1506(2)615	2	Review of Special Topics in Environmental Engineering	
The course comprises writing assignments, essays and presenting seminars on the recent concepts and technologies relevant to environmental engineering.			

Code	Credit Hours	Course Title	Prerequisites
150705	2	Ethics and Law for Health Professionals	
Definitions of ethics, law, risk management and public health will be clarified. Major ethical and legal conflicts in public health will be addressed. Justifying public health programs and policies will be discussed. Human rights and public health will be explained. The course will also tackle understanding of the public health profession's roles and professional values.			

## **12- Diploma in Public Health (Majoring Environmental Health)**

*Students should fulfill a total of 26 credit hours:*

### **1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1506601

### **2- Compulsory courses: 10 credit hours.**

1506602, 1506603, 1506(1)603, 1506(3)601, 1506(3)602

### **3- Elective courses: 6 credit hours.**

1506(3)610, 1506(3)611, 1506(3)612, 1506(3)613, 1506(3)614, 1506(3)615, 1506(3)616, 150705

### **1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1506601	Environmental Evaluation and Management Tools أدوات تقييم وإدارة البيئة	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

### **2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1506602	Principles of Water & Wastewater Treatment مبادئ معالجة المياه والمخلفات السائلة	2			2	
1506603	Principles of Solid & Hazardous Waste Management مبادئ إدارة المخلفات الصلبة والخطرة	2			2	
1506(1)603	Principles of Environmental Biology مبادئ البيولوجيا البيئية	1	2		2	
1506(3)601	Principles of Environmental Diseases مبادئ الأمراض البيئية	2			2	
1506(3)602	Principles of Environmental Toxicology مبادئ علم السموم البيئية	2			2	
<b>Total</b>		<b>9</b>	<b>2</b>		<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1506(3)610	Environmental Epidemiology الوبائيات البيئية	2			2	
1506(3)611	Environmental Health Promotion تعزيز الصحة البيئية	2			2	
1506(3)612	Environmental Health Considerations in Disaster Management اعتبارات الصحة البيئية في إدارة الكوارث	2			2	
1506(3)613	Global Problems and Their Impacts on Environmental Health المشاكل العالمية وآثارها على الصحة البيئية	2			2	
1506(3)614	Environmental Health Aspects of Ionizing and Non-ionizing Radiation أوجه الصحة البيئية في الإشعاعات المؤينة وغير المؤينة	2			2	
1506(3)615	Environmental Infection Control in Health-Care Facilities مكافحة العدوى البيئية في مرافق الرعاية الصحية	2			2	
1506(3)616	Special Studies in Environmental Health دراسات خاصة في الصحة البيئية	2			2	
150705	Ethics and Law for Health Professionals الأخلاقيات والقانون لأفراد الفريق الصحي	2			2	

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology & Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data.			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behaviorial science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1506601	2	Environmental Evaluation & Management Tools	
The course introduces students to the various methods and tools of environmental management and evaluation, providing them with an introduction to environmental regulations, environmental risk assessment (ERA), life cycle assessment (LCA), environmental impact assessment (EIA), design for environment, etc...			

Code	Credit Hours	Course Title	Prerequisites
1506602	2	Principles of Water & Wastewater Treatment	
Principles of water treatment including coagulation, sedimentation, filtration, disinfection and desalination. Principles of wastewater treatment including primary, secondary and tertiary treatment.			

Code	Credit Hours	Course Title	Prerequisites
1506603	2	Principles of Solid & Hazardous Waste Management	
Definition and sources of solid and hazardous waste, public health impacts of solid and hazardous waste, principles of solid and hazardous waste management including source reduction, collection and transport, composting, recycling treatment and disposal.			

Code	Credit Hours	Course Title	Prerequisites
<b>1506(1)603</b>	<b>2</b>	<b>Principles of Environmental Biology</b>	
Ecological systems, microorganisms of importance in the environment, role of microorganisms in wastewater & solid waste management, microbiological standards.			

Code	Credit Hours	Course Title	Prerequisites
<b>1506(3)601</b>	<b>2</b>	<b>Principles of Environmental Diseases</b>	
Principles of the interaction between environmental factors and human health and the methods of assessing and evaluating this relationship; some of the major environmental diseases, their causes, detection methods, and control and prevention measures.			

Code	Credit Hours	Course Title	Prerequisites
<b>1506(3)602</b>	<b>2</b>	<b>Principles of Environmental Toxicology</b>	
Types and occurrence of environmental toxins, exposure routes, metabolism, assessment of exposure & measurement techniques, dose-effect & dose-response, effects of toxins on man & the environment, examples of environmental toxins, etc.			

Code	Credit Hours	Course Title	Prerequisites
<b>1506(3)610</b>	<b>2</b>	<b>Environmental Epidemiology</b>	
Definition, types of environmental epidemiological studies, design and conduct of epidemiological studies, sources of data in environmental epidemiology, identification of physical, chemical, and biological hazards, exposure assessment and biomarkers, risk assessment and management, case studies.			

Code	Credit Hours	Course Title	Prerequisites
<b>1506(3)611</b>	<b>2</b>	<b>Environmental Health Promotion</b>	
Relation between man and his environment, environmental legislation, principles of health promotion and public participation applicable in the field of environmental health, communication methods suitable for environmental health messages, case studies.			

Code	Credit Hours	Course Title	Prerequisites
<b>1506(3)612</b>	<b>2</b>	<b>Environmental Health Considerations in Disaster Management</b>	
Types of disasters, disaster management cycles, pre-disaster activities, ante-disaster activities, post-disaster activities, technical aspects of disaster management, natural disasters, chemical accidents, radiation emergencies, role of health education and community participation.			

Code	Credit Hours	Course Title	Prerequisites
1506(3)613	2	Global Problems and Their Impacts on Environmental Health	
Definitions, examples for global problems: ozone depletion; climate change, deforestation; desertification; water shortage; loss of biodiversity; coastal zone threats; population over-growth; impacts on environmental health, emergence and spread of diseases; etc.			

Code	Credit Hours	Course Title	Prerequisites
1506(3)614	2	Environmental Health Aspects of Ionizing and Non-ionizing Radiation	
Types of radiation, sources and uses, characteristics of ionizing and non-ionizing radiation, signs and symptoms of exposure to ionizing and non-ionizing radiation, protection, prevention and control, regulations.			

Code	Credit Hours	Course Title	Prerequisites
1506(3)615	2	Environmental Infection Control in Health-Care Facilities	
Environmental sanitation in health care facilities, water supply, wastewater, solid waste, hazardous waste, ventilation, temperature, humidity, lighting, cleanliness, laundry, kitchen, vector control, nosocomial infections, quality control in hospitals.			

Code	Credit Hours	Course Title	Prerequisites
1506(3)616	2	Special Studies in Environmental Health	
The course comprises writing assignments, essays and presenting seminars on the most recent topics in environmental health, e.g. emerging diseases, air, water, soil & food pollution, various environmental risk factors & health, etc.			

Code	Credit Hours	Course Title	Prerequisites
150705	2	Ethics and Law for Health Professionals	
Definitions of ethics, law, risk management and public health will be clarified. Major ethical and legal conflicts in public health will be addressed. Justifying public health programs and policies will be discussed. Human rights and public health will be explained. The course will also tackle understanding of the public health profession's roles and professional values.			

## **13- Diploma in Public Health (Majoring Nutrition)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1507600

**2- Compulsory courses: 10 credit hours.**

1507(1)601, 1507(1)602, 1507(1)603, 1507(1)604, 1507(1)605

**3- Elective courses: 6 credit hours.**

1507(1)606, 1507(1)607, 1507(1)608, 1507(1)609, 1507(2)609, 1507(3)704

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1507600	Principles of Nutrition مبادئ التغذية	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

**2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1507(1)601	Nutritional Assessment التقييم التغذوي	1	2		2	
1507(1)602	Malnutrition Problems مشاكل سوء التغذية	2			2	
1507(1)603	Nutrition Programs برامج التغذية	2			2	
1507(1)604	Medical Nutrition Therapy العلاج الغذائي الطبي	1	2		2	1507600
1507(1)605	Nutrition Through Life Span التغذية خلال مراحل الحياة	2			2	
<b>Total</b>		<b>8</b>	<b>4</b>		<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1507(1)606	Basics of Meal Planning اسس تخطيط الوجبة	1	2		2	
1507(1)607	Recent Trends in Nutrition الاتجاهات الحديثة في التغذية	1	2		2	
1507(1)608	Nutritional Value of Foods القيمة الغذائية للأطعمة	2			2	
1507(1)609	Dietary Needs of Special Groups الاحتياجات التغذوية للفئات الخاصة	2			2	
1507(2)609	Basics of Food Control أساسيات الرقابة على الأغذية	2			2	
1507(1)610	Biochemistry of Human Nutrition الكيمياء الحيوية في تغذية الإنسان	2			2	
1507(3)704	Food Chemistry كيمياء الأغذية	2			2	

### **Course Description**

Code	Credit hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			



Code	Credit hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1507600	2	Principles of Nutrition	
The course aims at giving the student the knowledge about the required nutrients and their functions, recommended intakes, and dietary sources to maintain normal growth and sustain life of individuals. Also this course aims at giving the student the knowledge about principles of food analysis and food hygiene by giving knowledge about the determination of macro and micronutrients of food components and safe handling of foods and their importance in preventing the occurrence of food borne diseases.			

Code	Credit Hours	Course Title	Prerequisites
1507(1)601	2	Nutritional Assessment	
The course aims at giving the student the scientific knowledge and practical skills in the assessment of the nutritional status of individuals and groups. Students will gain an understanding of dietary, biochemical, anthropometric and clinical determinants used in the assessment of the nutritional status.			

Code	Credit Hours	Course Title	Prerequisites
1507(1)602	2	Malnutrition Problems	
The course deals with malnutrition as a spectrum of health problems including under nutrition at one end of the spectrum and over nutrition at the other end. The focus of the course is on the current major nutrition problems in the developing countries. The student will acquire knowledge on the etiology and factors related to man as the host of the problem including biochemical and pathological lesions, signs and symptoms, the diet as its agent including nutrient deficiencies, factors related to the environment which encompasses both host and agent, and the management, prevention and control of these problems at all levels.			

Code	Credit Hours	Course Title	Prerequisites
1507(1)603	2	Nutrition Programs	
The course presents the various programs applied in various situations to alleviate prevailing nutrition deficiency problems. The students will be acquainted with the components of nutrition programs, selection of the most appropriate program for various nutritional, social, economic and health situations. Criteria for the selection of the target group for every program will be discussed. The course covers the aspects of the organization, application of nutrition programs.			

Code	Credit Hours	Course Title	Prerequisites
1507(1)604	2	Medical Nutrition Therapy	
The course aims at giving theoretical knowledge and practical skills in the nutrition management of diseases of body system organs and the art of constructing therapeutic diets. The course will describe the nutrition care process from assessment to diagnosis and intervention.			

Code	Credit Hours	Course Title	Prerequisites
1507(1)605	2	Nutrition Through Life Span	
The course aims at gaining knowledge in the nutrition during the normal life cycle. The course will review major biological issues of importance from the standpoint of human nutrition in pregnancy, lactation, infancy, childhood, adolescence, adults, and elderly.			

Code	Credit Hours	Course Title	Prerequisites
1507(1)606	2	Basics of Meal Planning	
The course aims at giving the student the basics of meal planning in order to be able to construct diets used in the nutritional care of various nutritional problems. It concentrates on giving knowledge in nutritional needs of different population subgroup, food pyramids and how to estimate nutritional requirements.			

Code	Credit Hours	Course Title	Prerequisites
1507(1)607	2	Recent Trends in Nutrition	
The course aiming at gaining knowledge of advanced topics in human research and are of public health importance. Assigned readings and discussion of topics of current concern and broad interest in contemporary nutrition.			

Code	Credit Hours	Course Title	Prerequisites
1507(1)608	2	Nutritional Value of Foods	
The course aiming at gaining knowledge about the nutritive value of foods in fresh and processed state, the relation of foods to human health and the effect of various methods of food processing on the nutritive value of foods.			

Code	Credit Hours	Course Title	Prerequisites
1507(1)609	2	Dietary Needs of Special Groups	
The course aiming at giving the student knowledge about the nutritional problems, dietary requirements, nutritional assessment and nutritional care of individuals with special needs.			

Code	Credit Hours	Course Title	Prerequisites
1507(2)609	2	Basics of Food Control	
This course provides information about proper food handling and proper washing of hands. It also provides simple precautions that can help persons and their families from uninvited guests and that can help prevent food poisoning at home and when eating out. It also gives information about plastics wraps, food containers, and microwave and freezer safety.			

Code	Credit Hours	Course Title	Prerequisites
1507(3)704	2	Food Chemistry	
This course highlights the importance of studying chemistry of food components and chemical reactions that take place in the biological system. This course covers different topics including: water in biological system, proteins and amino acids, carbohydrates and sugars and volatile compounds. Chemical reactions that take place in the biological systems include: enzymic and nonenzymic reactions, oxidation of food and flavour reactions.			

## **14- Diploma in Public Health (Majoring Food Hygiene and Control)**

*Students should fulfill a total of 26 credit hours:*

### **1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1507600

### **2- Compulsory courses: 10 credit hours.**

1507(2)601, 1507(2)602, 1507(2)603, 1507(2)604, 1507(2)605

### **3- Elective courses: 6 credit hours.**

1507(2)606, 1507(2)607, 1507(2)608, 1507(2)609, 1507(2)610

### **1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1507600	Principles of Nutrition مبادئ التغذية	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

### **2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1507(2)601	Milk Hygiene صحة الألبان	1	2		2	
1507(2)602	Meat Hygiene and Inspection صحة اللحوم وفحصها	1	2		2	
1507(2)603	Food Microbiology ميكروبيولوجيا الأغذية	1	2		2	
1507(2)604	Quality Management Systems أنظمة إدارة الجودة	2			2	
1507(2)605	Food Additives and Contaminants مضافات وملوثات الغذاء	2			2	
<b>Total</b>		<b>7</b>	<b>6</b>		<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1507(2)606	Food Laws and Regulations قوانين وتشريعات الأغذية	2			2	
1507(2)607	Foodborne Hazards المخاطر التي تنتقل عن طريق الغذاء	2			2	
1507(2)608	Basics of Food Control أساسيات الرقابة على الأغذية	2			2	
1507(2)609	Good Catering Practices الممارسات التغذوية الجيدة	2			2	
1507(2)610	Serving Safe Food التحضير الآمن للغذاء	2			2	

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1507600	2	Principles of Nutrition	
The course aims at giving the student the knowledge about the required nutrients and their functions, recommended intakes, and dietary sources to maintain normal growth and sustain life of individuals. Also this course aims at giving the student the knowledge about principles of food analysis and food hygiene by giving knowledge about the determination of macro and micronutrients of food components and safe handling of foods and their importance in preventing the occurrence of food borne diseases.			

Code	Credit Hours	Course Title	Prerequisites
1507(2)601	2	Milk Hygiene	
This course aims to provide basic background knowledge of milk quality problems, and to give help and solutions to those committed to improving milk quality. The quality parameters believed to be significant are identified and their nature, importance, principles of measurement and how and where milk is sampled and tested is discussed. The value of good quality milk and how it can be produced and maintained is emphasized			

Code	Credit Hours	Course Title	Prerequisites
1507(2)602	2	Meat Hygiene and Inspection	
To provide an understanding of the integrated approach for producing safe meat including abattoir hygiene and inspection, Principles of infectious disease and aspects of meat-borne disease, control, and the methods by which hygiene can be assessed.			

Code	Credit Hours	Course Title	Prerequisites
1507(2)603	2	Food Microbiology	
This course is designed to apply the principles of microbiology to food systems. The course covers the ecological relationships between microorganisms and foods, in both negative (spoilage) and positive (food fermentation) contexts. The course is designed to provide the background necessary to understand sources of microbes in foods and factors affecting microbial growth. It will also considers the principles of food preservation and the effect of processing changes on the microbial load, as well as Fermented Foods			

Code	Credit Hours	Course Title	Prerequisites
1507(2)604	2	Quality Management Systems	
This course explains the requirements of the international standard for quality management-BS EN ISO 9001, to offer advice about achieving those requirements and to indicate what the assessors will look for at assessment time.			

Code	Credit Hours	Course Title	Prerequisites
1507(2)605	2	Food Additives and Contaminants	
This course includes a definition and classification of food additives, reasons for the use of food additives, toxicological evaluation, specifications and methods of analysis of certain food additives, intentional and incidental food additives, and the need to control the use of food additives.			

Code	Credit Hours	Course Title	Prerequisites
1507(2)606	2	Food Laws and Regulations	
This course aims to understand the role of food legislations, and standards in supporting food control systems and enhancing food safety measures. The topics of this course include need for food control service, planning a national food control service, Egyptian and international food laws, and food control infrastructure.			

Code	Credit Hours	Course Title	Prerequisites
1507(2)607	2	Foodborne Hazards	
This course defines a foodborne hazard, biological, chemical, and physical hazards that can cause illness or injury when consumed along with the food. It also defines potentially hazardous foods and highlights special handling and storage requirements needed to deal with these foods to prevent microbial growth as well as the conditions needed for bacteria to multiply.			

Code	Credit Hours	Course Title	Prerequisites
1507(2)608	2	Basics of Food Control	
This course provides information about proper food handling and proper washing of hands. It also provides simple precautions that can help persons and their families from uninvited guests and that can help prevent food poisoning at home and when eating out. It also gives information about plastics wraps, food containers, and microwave and freezer safety.			

Code	Credit Hours	Course Title	Prerequisites
1507(2)609	2	Good Catering Practices	
This course presents a comprehensive approach and the recommended practices that should be applied by caterers to prioritise the steps to be taken in food hygiene matters.			

Code	Credit Hours	Course Title	Prerequisites
1507(2)610	2	Serving Safe Food	
This course reinforces the key principles of foodservice sanitation, such as personal hygiene, receiving and storage food, safe food handling, and cleaning and sanitizing.			



## **15- Diploma in Public Health (Majoring Food Analysis)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1507600

**2- Compulsory courses: 10 credit hours.**

1507(3)601, 1507(3)602, 1507(3)603, 1507(3)604

**3- Elective courses: 6 credit hours.**

1507(3)605, 1507(3)606, 1507(3)607, 1507(3)608, 1507(3)609

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1507600	Principles of Nutrition مبادئ التغذية	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

**2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1507(3)601	Introduction to Food Analysis مقدمة في تحليل الأغذية	2	2		3	
1507(3)602	Introduction to Analytical Chemistry مقدمة في الكيمياء التحليلية	1	2		2	
1507(3)603	Introduction to Chromatography مقدمة في الكروماتوجرافيا	2	2		3	
1507(3)604	Chemical Contaminants of Food الملوثات الكيميائية للغذاء	1	2		2	
<b>Total</b>		<b>6</b>	<b>8</b>		<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1507(3)605	Introduction to Spectroscopy مقدمة في التحليل الطيفي	2			2	
1507(3)606	Flavors النكهات	2	2		3	
1507(3)607	Principles of Mycotoxines مبادئ السموم الفطرية	1	2		2	
1507(3)608	Introduction to Sensory Evaluation مقدمة في التقييم الحسي	2	2		3	
1507(3)609	Introduction to Food Biotechnology مقدمة في التكنولوجيا الحيوية للغذاء	2			2	

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1507600	2	Principles of Nutrition	
The course aims at giving the student the knowledge about the required nutrients and their functions, recommended intakes, and dietary sources to maintain normal growth and sustain life of individuals. Also this course aims at giving the student the knowledge about principles of food analysis and food hygiene by giving knowledge about the determination of macro and micronutrients of food components and safe handling of foods and their importance in preventing the occurrence of food borne diseases.			

Code	Credit Hours	Course Title	Prerequisites
1507(3)601	3	Introduction to Food Analysis	
This course highlights the different methods of determination of macronutrients including fat, protein, carbohydrate, ash, moisture by using suitable methods; it also enables students to apply methods of quality and statistical assessment of collected data.			

Code	Credit Hours	Course Title	Prerequisites
1507(3)602	2	Introduction to Analytical Chemistry	
This course aims at giving knowledge about analytical science which deals with volumetric, colorimetric and voltametric analysis. It also deals with methods of acid-base equilibrium and Analytical instrumentation methods. By the completion of the course the students will be able to prepare solutions with defined normality and morality.			

Code	Credit Hours	Course Title	Prerequisites
1507(3)603	3	Introduction to Chromatography	
This course highlights the principles of chromatographic techniques and their applications, it helps students to know types of chromatography and methods of their classifications.			

Code	Credit Hours	Course Title	Prerequisites
1507(3)604	2	Chemical Contaminants of Food	
This course deals with food safety. It highlights the different types and main groups of chemical contaminants of food including growth hormones, agricultural chemicals, natural substances and food additives.			

Code	Credit Hours	Course Title	Prerequisites
1507(3)605	2	Introduction to Spectroscopy	
This course aims at giving knowledge about the basic principles of spectroscopy, properties of light, ultraviolet, visible, fluresence and infrared spectroscopy. It also provides the students with the principles of energy state of matter and energy level transition in spectroscopy.			

Code	Credit Hours	Course Title	Prerequisites
1507(3)606	3	Flavors	
This course aims at understanding the methods of flavour analysis, sensory assessment of flavors, taste and non specific porous sensations. This course gives outlines about different sources of flavors (vegetable, fruit and spice flavors, lactic acid- methanol fermentation flavors,...etc). By the completion of this course the students will be able to understand the future directions of flavour chemistry and technology.			

Code	Credit Hours	Course Title	Prerequisites
1507(3)607	2	Principles of Mycotoxines	
This course provides students with the principles of mycotoxins including: types of mycotoxins, food contamination with mycotoxins, methods of analysis of mycotoxins in food, identification and decontamination of mycotoxins as well as toxicity of mycotoxins.			

Code	Credit Hours	Course Title	Prerequisites
1507(3)608	3	Introduction to Sensory Evaluation	
This course focuses on the principles of sensory evaluation as a method to assess food quality. Topics of this course include basic theories for the assessment of odour, colour, taste and texture in relation to food quality.			

Code	Credit Hours	Course Title	Prerequisites
1507(3)609	2	Introduction to Food Biotechnology	
This course focuses on recent developments and applications of modern genetics as well as enzyme, cell, tissue, and organ-based biological processes to produce and improve foods, food ingredients, and functional foods. Other areas of strong interest are fermentation to improve foods, food ingredients, functional foods, and food waste remediation. In addition, modern molecular and biochemical approaches to improving food safety are also covered.			

## **16- Diploma in Public Health (Majoring Health Management, Planning and Policy)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1508600

**2- Compulsory courses: 10 credit hours.**

1508(1)601 1508(1)602, 1508(1)603, 1508(1)604, 1508(1)605

**3- Elective courses: 6 credit hours.**

1508(1)606, 1508(1)607, 1508(1)608, 1508(1)609, 1508(1)610, 1508(1)611

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1508600	Health Care system نظام الرعاية الصحية	2			2	
<b>Total</b>		<b>9</b>		<b>1</b>	<b>10</b>	

**2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1508(1)601	Fundamentals of Health Planning أساسيات التخطيط الصحي	2			2	
1508(1)602	Introduction to Health Care Quality مقدمة لجودة الرعاية الصحية	2			2	
1508(1)603	Dimensions of Health Management and Policy أبعاد الإدارة والسياسة الصحية	2			2	
1508(1)604	Fundamentals of Human Resources Management أساسيات إدارة الموارد البشرية	2			2	
1508(1)605	Basic Principles of Leadership in Health المبادئ الأساسية للقيادة في الصحة	2			2	
<b>Total</b>		<b>10</b>			<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1508(1)606	Economics of Health and Medical Care الاقتصاديات الصحية والرعاية الطبية	2			2	
1508(1)607	Financial Management of Health Care Institutions الإدارة المالية لمؤسسات الرعاية الصحية	2			2	
1508(1)608	Introduction to Problem Solving and Decision Making مقدمة لحل المشكلات وإتخاذ القرار	2			2	
1508(1)609	Local Health Administration الإدارة المحلية	2			2	
1508(1)610	Advances in Health Management, Planning and Policy الحديث في الإدارة الصحية والتخطيط الصحي	2			2	
1508(1)611	Basic Principles of Health Program Evaluation أساسيات تقييم البرامج الصحية	2			2	

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>150603</b>	<b>2</b>	<b>Fundamentals of Health Administration &amp; Behavioral Sciences</b>	

This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>150604</b> <b>150605</b>	<b>2</b>	<b>Health Survey Field Training</b>	

This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>1508600</b>	<b>2</b>	<b>Health Care System</b>	

This course overview the Egyptian health care system and its driving forces. Major determinants of healthcare utilization will be explored including factors affecting health seeking behavior. Current and expected future health policies will be discussed in the context of their effect on utilization of services

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>1508(1)601</b>	<b>2</b>	<b>Fundamentals of Health Planning</b>	

This course provides students with the knowledge and skills required for successful planning for different health organizations and systems with special emphasis on strategic planning. It covers areas related to development of Health Service Organization (HSO) missions, objectives, programmes, policies & procedures. Differentiates between types of plans e.g. strategic versus operational, single use versus standing plans.....etc. Contemporary issues in planning e.g. criticism of planning and how to plan in a dynamic environment.



Code	Credit Hours	Course Title	Prerequisites
1508(1)602	2	Introduction to Health Care Quality	
This course provides students with the basics concepts and issues related to quality health management. It introduces students to the philosophy of total quality management. Students are introduced to the basic skills needed for the development and use of indicators and thresholds as well as the basic tools and techniques required for improving quality in health care organization.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)603	2	Dimensions of Health Management and Policy	
This course identifies the state of health care system in Egypt and helps students to understand the role of different players in the arena of health care delivery. It helps graduates to recognize the different dimensions of accessibility and availability of health care services. In addition, ethical issues related to health care delivery will be discussed.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)604	2	Fundamentals of Human Resources Management	
This course provides students with an overview of the human resources management in health care organizations. It focuses on the different staffing activities .It helps students in writing an accurate description of each job, performing recruitment activities so that they can choose from a well-qualified pool of applicants and use interviewing, testing and references to ensure hiring the best available personnel. It provides the students with a fundamental understanding of performance appraisal. It also provides the skills to design, implement, and evaluate training programmes. In addition, employee movement within the organization through promotion and transfer, demotion, separation and discipline of employees will be studied.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)605	2	Basic Principles of Leadership in Health	
This course demonstrates basic principles required for the development of effective leaders of health care organizations. It includes definitions, sources of power and influence strategies, role of leaders as change agents, leadership theories, emotional intelligence as well as contemporary leadership approaches.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)606	2	Economics of Health and Medical Care	
This course provides students with an overview of the application of the economics theory and concepts in managing health and medical care services. It focuses on the macro-economics and micro-economics concepts. It helps students in acquiring skills in applying concepts of micro-economics in health management (particularly the marginal value, fixed & variable costs and elasticity of demand) and develops skills in cost analysis (cost benefit & cost effectiveness). It helps students to develop positive attitudes towards incentives which influence optimum demand and which avoid over utilization.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)607	2	Financial Management of Health Care Institutions	
This course provides students with an overview of basic concepts and skills required for adequate financial decision making. It focuses on all important issues related to financial management. It helps students to explain and set budgets and differentiate between cost types, cost containment and cost volume analysis.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)608	2	Introduction to Problem Solving and Decision Making	
The aim of this course is to introduce students to the basic principles of problem solving & decision making in order to be able to solve organizational health problems based on objective non- biased decisions. The skill of solving problems is acquired through learning and applying the nine step systematic framework for problem solving and decision making which can be implemented for solving problems in health care organizations.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)609	2	Local Health Administration	
This course provides graduates with a fundamental understanding of the local health facilities responsible for the provision of health services to the public as well as those facilities responsible for their administration. It helps graduates in determining the relation between the local, intermediate and central administrative levels in the MOHP and their impact on the functioning of local health services, and determining the relation between NGO's and local health facilities. In addition the role of local council in relation to local health facilities will be studied.			

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Code	Credit Hours	Course Title	Prerequisites
1508(1)610	2	Advances in Health Management, Planning and Policy	
This course focuses on developing skills required by students to be able to write and present a scientific review paper on up-to-date topics of priority importance in health management, planning and policy using internet, library and other valid sources.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)611	2	Basic Principles of Health Program Evaluation	
This course introduces students to the basic principles and methods of program evaluation in health care organizations. It focuses on fundamental understanding of different types of evaluation approaches using appropriate standards needed for effective program evaluation.			

## **17- Diploma in Public Health (Majoring Hospital Administration)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1508600

**2- Compulsory courses: 10 credit hours.**

1508(2)620, 1508(2)621, 1508(2)622, 1508(2)623, 1508(1)604

**3- Elective courses: 6 credit hours.**

1508(2)725, 1508(2)726 , 1508(2)624, 1508(2)625 , 1508(2)626

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1508600	Health Care System نظام الرعاية الصحية	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

**2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1508(2)620	Fundamentals of Hospital Planning and Organization أساسيات تخطيط وتنظيم المستشفيات	2			2	
1508(2)621	Health Information and Patient Record Management المعلومات الصحية وإدارة سجل المريض	2			2	
1508(2)622	Quality and Utilization Management in Hospitals إدارة الجودة والإستخدام بالمستشفيات	2			2	
1508(2)623	Principles of Accounting مبادئ المحاسبة	2			2	
1508(1)604	Fundamentals of Human Resources Management أساسيات إدارة الموارد البشرية	2			2	
<b>Total</b>		<b>10</b>			<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1508(2)725	Quality Improvement Tools and Techniques in Hospitals أدوات وطرق تحسين الجودة بالمستشفيات	2			2	
1508(2)726	Patient Safety and Risk Management سلامة المرضى وإدارة المخاطر	2			2	
1508(2)624	Hospital Economics إقتصاديات المستشفيات	2			2	
1508(2)625	Management of Hospital Departments إدارة أقسام المستشفى	2			2	
1508(2)626	Ethical and Legal Issue in Hospitals القضايا الأخلاقية والقانونية بالمستشفيات	2			2	
1508(1)605	Basic Principles of Leadership in Health المبادئ الأساسية للقيادة في الصحة	2			2	
1508(1)602	Introduction to Health Care Quality مقدمة لجودة الرعاية الصحية	2			2	

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1508600		Health Care System	
This course overview the Egyptian health care system and its driving forces. Major determinants of healthcare utilization will be explored including factors affecting health seeking behavior. Current and expected future health policies will be discussed in the context of their effect on utilization of services			

Code	Credit Hours	Course Title	Prerequisites
1508(2)620	2	Fundamentals of Hospital Planning and Organization	
This course provides students with knowledge and skills related to principles of hospital planning to be able to participate effectively in planning for hospital services as well as introducing students to classical and modern organizational concepts and their application in hospitals.			

Code	Credit Hours	Course Title	Prerequisites
1508(2)621	2	Health Information and Patient Record Management	
This course is designed to provide students with a broad understanding of information systems and information management in various healthcare settings. Designing, implementing, and maintaining manual as well as computerized medical record systems will be covered.			

Code	Credit Hours	Course Title	Prerequisites
1508(2)622	2	Quality and Utilization Management in Hospitals	
This course provides students with strong background about steps of planning and implementation quality management in hospitals and different methods for assessment of inappropriate utilization of hospitals			

Code	Credit Hours	Course Title	Prerequisites
1508(2)623	2	Principles of Accounting	
This course introduces students to basic principles and concepts of financial management. It covers the fundamental tools and techniques necessary for financial management in hospitals and how to control hospital costs.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)604	2	Fundamentals of Human Resources Management	
This course introduces students to the various activities of acquisition and retention of human resources in health service organizations. The course is also extended to cover human behaviour and conflict management in health care organizations			

Code	Credit Hours	Course Title	Prerequisites
1508(2)725	2	Quality Improvement Tools and Techniques in Hospitals	
This course provide students with knowledge and skills necessary to be able to use quality tools for performance improvement in hospitals. Classes of quality improvement tools will be covered and their uses in quality improvement projects will be demonstrated.			

Code	Credit Hours	Course Title	Prerequisites
1508(2)726	2	Patient Safety and Risk Management	
This course will provide students with knowledge and skills necessary to be able to participate in designing and implementing patient safety measures/programs in hospitals.			

Code	Credit Hours	Course Title	Prerequisites
1508(2)624	2	Hospital Economics	
This course covers principles of microeconomic and macroeconomic and different ways of economic health evaluations: Cost-effectiveness analysis, Cost-utility analysis and Cost-benefit analysis with practical application for hospital.			

Code	Credit Hours	Course Title	Prerequisites
1508(2)625	2	Management of Hospital Departments	
This course provides students with knowledge and skills necessary to be able to manage different hospital departments. The course illustrate the use of a framework for management of hospital department and apply the framework for management of clinical, ancillary and administrative department.			

Code	Credit Hours	Course Title	Prerequisites
1508(2)626	2	Ethical and Legal Issue in Hospitals	
This course introduces students to the legal system and applicable health legislation. The course outline various important ethical issues related to health care management, their implications and how organizations respond to ethical problems and improve ethical behaviour.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)605	2	Basic Principles of Leadership in Health	
This course demonstrates basic principles required for the development of effective leaders of health care organizations. It includes definitions, sources of power and influence strategies, role of leaders as change agents, leadership theories, emotional intelligence as well as contemporary leadership approaches.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)602	2	Introduction to Health Care Quality	
This course provides students with the basics concepts and issues related to quality health management. It introduces students to the philosophy of total quality management. Students are introduced to the basic skills needed for the development and use of indicators and thresholds as well as the basic tools and techniques required for improving quality in health care organization.			



## **18- Diploma in Public Health (Majoring Health Education and Behavioral Sciences)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1508(0)600.

**2- Compulsory courses: 10 credit hours.**

1508 (3) 601, 1508(3)602, 1508(3)603, 1508(3)604, 1508(3)605.

**3- Elective courses: 6 credit hours.**

1508(3)606, 1508(3)607, 1508(3)608, 1508(3)609, 1508(3)610, 1508(3)611.

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والإحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الإدارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1508600	Health Care System نظام الرعاية الصحية	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

**2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1508(3)601	Basics of Health Education and Health Promotion أساسيات التثقيف الصحي وتعزيز الصحة	2			2	
1508(3)602	Health Behavior Determinants and Modification محددات وتعديل السلوك الصحي	2			2	
1508(3)603	Planning and Evaluation of Health Education Programs تخطيط وتقييم برامج التثقيف الصحي	2			2	
1508(3)604	Communication in Health Education الاتصال في التثقيف الصحي	2			2	
1508(3)605	Field Experience in Health Education التدريب الحقل في التثقيف الصحي	1		4	2	
<b>Total</b>		<b>9</b>	<b>2</b>	<b>4</b>	<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1508(3)606	HIV/ AIDS Education التثقيف الصحى فى مجال مرض العوز المناعى	2			2	
1508(3)607	Medical Anthropology الأنثروبولوجيا الطبية	2			2	
1508(3)608	Health Education in Occupational Settings التثقيف الصحى فى المؤسسات المهنية	2			2	
1508(3)609	Comprehensive School Health Education التربية الصحية المدرسية الشاملة	2			2	
1508(3)6010	Environmental Health Education التثقيف الصحى البيئى	2			2	
1508(3)6011	Contemporary Issue in Health Education الموضوعات المعاصرة فى التثقيف الصحى	2			2	

### **Course Description**

Code	Credit hours	Course title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope and uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data.			

Code	Credit hours	Course title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollutions.			

Code	Credit hours	Course title	Prerequisites
150603	2	Fundamentals of Health Administration and Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit hours	Course title	Prerequisites
<b>150604</b> <b>150605</b>	<b>2</b>	<b>Health Survey</b> <b>Field Training</b>	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit hours	Course title	Prerequisites
1508600	2	Health Care System	
This course overview the Egyptian health care system and its driving forces. Major determinates of healthcare utilization will be explored including factors affecting health seeking behavior. Current and expected future health policies will be discussed in the contenxt of their effect on utilization of services.			

Code	Credit hours	Course title	Prerequisites
1508(3)601	2	Basic of Health Education and Health Promotion	
This course provides students with understanding of principles of health education and provides knowledge about health education practice, concept, tools, and application of health education in different settings. The course emphasizes intersectoral collaboration. It covers the rational moving form health education to health promotion and contribution of behavioral sciences to health promotion, health promotion principles and practice. Health promoters and their roles, community health promotion programs, models of health promotion, context of health promotion, agents of the health promotion matrix.			

Code	Credit hours	Course title	Prerequisites
1508(3)602	2	Health Behavior Determinants and Modification	
This course will provide students with knowledge and skills related to the role of human behavior in promoting health as well as the determinants of human behavior and different theories explaining human behavior. It will provide students with the foundation and skills to facilitate behavior change and conduct health education programs in the community, behavior change theories, evaluation of behavior change interventions.			

Code	Credit hours	Course title	Prerequisites
1508(3)603	2	Planning and Evaluation of Health Education Programs	
This course provides students with knowledge and skills related to planning, implementation and evaluation of health education programs in general and at different levels, individuals, groups, community and national programs.			

Code	Credit hours	Course title	Prerequisites
1508(3)604	2	Communication in Health Education	
This course will provide students with knowledge and skills of health communication, health communication process, methods and criteria of effective communication as well as training of the learner in the skills of effective communication. The topic include development of effective health communication strategies, basic health communication literacy and the use of theory to design effective health education message.			

Code	Credit hours	Course title	Prerequisites
1508(3)605	2	Field Experience in Health Education	
This course designed to provide students with field training expediencies in health education practice that complement the student’s interests and career goals.			

Code	Credit hours	Course title	Prerequisites
1508(3)606	2	HIV/ AIDS Education	
This course provides students with knowledge and skills for designing health education programs for prevention of AIDS.			

Code	Credit hours	Course title	Prerequisites
1508(3)607	2	Medical Anthropology	
This course provides students with knowledge and skills necessary to apply medical anthropology research projects in health education/ health promotion interventions, relation between health and culture.			

Code	Credit hours	Course title	Prerequisites
1508(3)608	2	Health Education in Occupational Settings	
This course provides students with knowledge and skills to design, implement and evaluate health educational/health promotion strategies in the work place settings-safety culture and its components-Risk reduction activities- Evaluation of health education interventions in occupational settings.			

Code	Credit hours	Course title	Prerequisites
1508(3)609	2	Comprehensive School Health Education	
This course is designed to provide students with objectives, components, educational strategies for CSHE, Audiovisual materials in CSHE, Planning programs of CSHE, teaching knowledge attitudes and skills to school children, evaluation of CSHE programs, role of school for community health education.			

Code	Credit hours	Course title	Prerequisites
1508(3)610	2	Environmental Health Education	
This course provides students with knowledge and skills of environmental health education interventions for environmental health, environmental health education objectives, communication strategies, community participation, strategies for changing behavior for environmental health, risk perception, risk communication, health education intervention for environmental health, and ethics in environmental health programs.			

Code	Credit hours	Course title	Prerequisites
1508(3)611	2	Contemporary Issues in Health Education	
This course provides students with knowledge and skills to be able to write and present scientific review paper on up-to-date topic in health education and behavioral sciences using library, internet and other sources.			

## **19- Diploma in Public Health (Majoring Maternal and Child Health)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 150605, 1509600

**2- Compulsory courses: 10 credit hours.**

1509(1)601, 1509(1)602, 1509(1)603, 1509(1)604, 1509(1)605, 1509(1)609, 1509(1)610

**3- Elective courses: 6 credit hours.**

1509(1)606, 1509(1)607, 1509(1)608, 1508(3)603, 1501609

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1509600	Principles of Family Health مبادئ صحة الأسرة	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

**2- Compulsory courses: 14 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1509(1)601	Principles of Genetics أساسيات الوراثة	1			1	
1509(1)602	Health Problems of Under-five Children المشاكل الصحية للأطفال ما دون الخامسة	2			2	
1509(1)603	Maternal Health صحة الأم	2			2	
1509(1)604	Family Planning تنظيم الأسرة	1			1	
1509(1)605	Maternal and Child Health Services خدمات صحة الأم والطفل	1		4	2	
1509(1)609	Principles of Growth and Development أساسيات النمو والتطور	1			1	
1509(1)610	Principles of Care of Children with Special Needs مبادئ رعاية الأطفال ذوي الاحتياجات الخاصة	1			1	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1509(1)606	Essential Obstetric Care الرعاية التوليدية الأساسية	1	2		2	
1509(1)607	Essentials of Pediatrics for Neonates and Under – five Children أساسيات طب الأطفال حديثي الولادة و ما دون الخامسة	1	2		2	
1509(1)608	Emerging Health Problems in Early Childhood المشاكل المستجدة في مرحلة الطفولة المبكرة	2			2	
1508(3)603	Planning and Evaluation of Health Education Programs تخطيط و تقييم برامج التثقيف الصحي	2			2	
1501609	Using Secondary Data in Research استخدام البيانات الثانوية في البحث	1	2		2	

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data.			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1509600	2	Principles of Family Health	
This course is designed to provide the students with the key theoretical frameworks relevant to understanding the concept of family health and the major social, cultural, biological and environmental factors influencing it. Students will be able to understand types of families and stages of family evolution. Student will require knowledge on the services available to all family members relevant to their ages.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)601	1	Principles of Genetics	
The course is meant to provide the students with the scientific basis of genetics and to highlight the importance of genetics in public health . It will provide the students with the basic tools of counseling and screening for genetic problems required in their practice and to understand the different modes of inheritance and genetic mutations.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)602	2	Health Problems of Under-five Children	
This course provides the students with the basic knowledge entailed to manage the major health problems encountered by under-five children in developing countries. By the end of the course student will be able to develop the required knowledge and skills to manage the main U-5 health problems at the primary health care level.			



Code	Credit Hours	Course Title	Prerequisites
1509(1)603	2	Maternal Health	
This course is designed to acquaint the students with the basic concepts of maternal health and the main maternal health problems. The students will be able to recognize the factors underlying these problems and the available techniques for management of these problems at the primary health care level.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)604	1	Family Planning	
The course will provide fundamental understanding of the concept and status of fertility and factors affecting it, globally and in Egypt. Students will also be familiar with the different contraceptive methods and family planning programs implemented in Egypt and their impact. Finally they will acquire the background information required to provide quality family planning services at primary level.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)605	2	Maternal and Child Health Services	
This course is designed to acquaint the students with the current maternal and child health services provided at the primary level of care. Students will gain the required knowledge on the basic principles and main activates of maternal and child health services in the new context of health care system (family health units). Students will be able recognize the services provided by MCH for disease prevention and health promotion.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)609	1	Principles of Growth and Development	
The course is meant to provide the students with the scientific basis needed to asses the growth and development of children. By the end of the course students would be able to recognize abnormal growth using different tools such as growth curves and growth charts.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)610	1	Principles of Care of Children with Special Needs	
This course will provide the student with the concepts related to handicapping as well as the common disabilities in children globally and in developing countries. By the end of the course the students will be able to outline the various preventive measures at the primary, secondary and tertiary levels.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)606	2	Essential Obstetric Care	
This course will provide the students with the basic obstetric care knowledge required at the primary level including the ante-natal, natal, and post natal care. Students would be able to recognize the danger signs of pregnancy, labor and puerperium and the signs of timely referral of the patients to the appropriate referral level.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)607	2	Essentials of Pediatrics for Neonates and Under- five Children	
This course is designed to acquaint the learners with the basic knowledge and clinical skills required for diagnosis, management, and follow up of common neonatal and under-five problems encountered at the primary health care facility emphasizing on signs of timely referral of needed cases.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)608	2	Emerging Health Problems in Early Childhood	
This course gives the students an overview of a group of morbidities which result from changes in lifestyle and technology such as micronutrient deficiencies, obesity, street children, asthma, epilepsy resulting from photosensitivity etc. The students will learn how to assess the health status of children on an individual and community level. They will also be able to identify, analyze, prevent and manage those conditions. On a higher level, they will be able to develop a preventive program targeting some of those morbidities and specially adapted to the condition of the developing countries.			

Code	Credit Hours	Course Title	Prerequisites
1508(3)603	2	Planning and Evaluation of Health Education Programs	
This course provides students with knowledge and skills related to planning, implementation and evaluation of health education programs in general and at different levels, individuals, groups, community and national programs.			

Code	Credit Hours	Course Title	Prerequisites
1501609	2	Using Secondary Data in Research	
The wealth of secondary data, Designing secondary analysis, Accessing and handling survey data, Analyzing survey data, Reporting and interpretation.			

## **20- Diploma in Public Health (Majoring Adolescent and School Health)**

*Students should fulfill a total of 26 credit hours:*

### **1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 150605, 1509600

### **2- Compulsory courses: 10 credit hours.**

1509(2)601, 1509(2)602, 1509(2)603, 1509(2)604, 1509(1)601, 1509(1)609

### **3- Elective courses: 6 credit hours.**

1509(2)605, 1509(2)606, 1509(2)607, 1509(2)608, 1509(2)609, 1502602, 1502605, 1502608, 1502609, 1508(1)608, 1508(1)611, 1508(1)601, 1508(3)603, 1509(3)604

### **1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1509600	Principles of Family Health مبادئ صحة الأسرة	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

### **2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1509(1)601	Principles of Genetics أساسيات الوراثة	1			1	
1509(2)601	Healthful School Environment and School Health Education البيئة الصحية المدرسية والتثقيف الصحي المدرسي	2			2	
1509(2)602	Essentials of Clinical Pediatrics أساسيات طب الأطفال الإكلينيكي	1	2		2	
1509(2)603	Essential Health Problems among Adolescents and School Children المشاكل الصحية الأساسية بين المراهقين وأطفال المدارس	2			2	
1509(2)604	Principles of Care of School Children and Adolescents with Special Needs مبادئ رعاية أطفال المدارس والمراهقين ذوي الاحتياجات الخاصة	2			2	
1509(1)609	Principles of Growth and Development أساسيات النمو والتطور	1			1	
<b>Total</b>		<b>9</b>	<b>2</b>		<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1509(2)605	Adolescent and Reproductive Health المراهق والصحة الإنجابية	2			2	
1509(2)606	University Health Services خدمات الصحة الجامعية	2			2	
1509(2)607	The Problem of Smoking and How to Quit مشكلة التدخين وكيفية الإقلاع	2			2	
1509(2)608	Basic Field Training in Adolescents and School Health Problems تدريب حقل في الصحة المدرسية وصحة المراهق		4		1	
1509(2)609	Risk Taking Behavior among Adolescents and Youth السلوك الخطر للمراهقين و الشباب	2			2	
1502602	Sampling Techniques طرق المعاينة	2	2		3	
1502605	Non Parametric Analysis الطرق الإحصائية اللامعملية	1	2		2	
1502608	Statistical Application Using Excel Software التطبيقات الإحصائية لبرنامج اكسل	1	2		2	
1502609	Statistics and Study Design الإحصاء و نوع الدراسة	1	2		2	
1508(1)608	Introduction to Problem Solving and Decision Making مقدمة لحل المشكلات واتخاذ القرار	2			2	
1508(1)611	Basic Principles of Health Program Evaluation أساسيات تقييم البرامج الصحية	2			2	
1508(1)601	Fundamentals of Health Planning أساسيات التخطيط الصحي	2			2	
1508(3)603	Planning and Evaluation of Health Education Programs تخطيط و تقييم برامج التثقيف الصحي	2			2	
1509(3)604	Essentials of Child and Adolescent Mental Health أساسيات الصحة النفسية للطفل والمراهق	2			2	

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## **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)601	1	Principles of Genetics	
The course is meant to provide the students with the scientific basis of genetics and to highlight the importance of genetics in public health. It will provide the students with the basic tools of counseling and screening for genetic problems required in their practice and to understand the different modes of inheritance and genetic mutations.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)609	1	Principles of Growth and Development	
The course is meant to provide the students with the scientific basis needed to assess the growth and development of children. By the end of the course students would be able to recognize abnormal growth using different tools such as growth curves and growth charts.			

Code	Credit Hours	Course Title	Prerequisites
1509(2)601	2	Healthful School Environment and School Health Education	
This course will highlight the components of physical environment. Factors affecting the social and emotional environment in the classroom. Tools used for evaluation of the school environment. Role of the school doctors in establishing a healthy environment. Objectives of school health education programs. School personnel responsible for implementing the programs. Methods of communication. Components of health education programs needed for each level of education. Training programs performed on different aspects of health education.			

Code	Credit Hours	Course Title	Prerequisites
1509(2)602	2	Essentials of Clinical Pediatrics	
By the end of this course students will be able to identify the health norms of the school-age children. Taking a complete history. Physical examination of the child. Differential diagnosis of some general problems among school age children. Confirmatory investigations. Principles of management of some chronic diseases			

Code	Credit Hours	Course Title	Prerequisites
1509(2)603	2	Essential Health Problems among Adolescents and School Children	
This course will provide the students needed knowledge and skills concerning the general characteristics of adolescents and school children. Morbidities and mortalities among adolescents and school children. Essential health problems among adolescents and school children.			

Code	Credit Hours	Course Title	Prerequisites
1509(2)604	2	Principle of Care of School Children and Adolescents with Special Needs	
By the end of this course students will be able to identify definition of handicapped children. Epidemiology, etiology and some determinants of handicap. Different methods of assessment of handicapping condition. Preventive measures on the different levels of prevention.			

Code	Credit Hours	Course Title	Prerequisites
1509(2)605	2	Adolescent and Reproductive Health	
Definition and general characteristics of adolescents. Stages of adolescent period. Nutritional needs of adolescents. The influence of social environment on adolescent health. Adolescent health related behavior. Definition of reproductive health. Types of reproductive health programs or adolescents.			

Code	Credit Hours	Course Title	Prerequisites
1509(2)606	2	University Health Services	
The concept and components of university health program, the different health problems facing students and personnel in the university. The university environment. Health care for university students and staff.			

Code	Credit Hours	Course Title	Prerequisites
1509(2)607	2	The Problem of Smoking and How to Quit	
The concept of health. Risks of smoking and benefits of quitting. Triggers for smoking. Styles of responses to difficult situations. Areas and domains of smoking prevention.			

Code	Credit Hours	Course Title	Prerequisites
1509(2)608	2	Basic Field Training in Adolescents and School Health Problems	
Field training in different school health units, school health centers and Students hospital to identify the school health services offered for the management of the different health problems of adolescent and school children.			

Code	Credit Hours	Course Title	Prerequisites
1509(2)609	2	Risk Taking Behavior among Adolescents and Youth	
Characteristics and developmental features of adolescents. Health profile of youth Different risk taking behavioral problems among adolescents as smoking, drug addiction, AIDS, accidents, nutritional problems.....etc. Intervention programs for prevention and control of such problems.			

Code	Credit Hours	Course Title	Prerequisites
1502602	3	Sampling Techniques	
The concept of sampling, sampling distributions, parameters and statistics, central limit theorem, types of samples and sampling error, complex samples, the normal distribution and estimation of a population parameter from a sample, determination of the minimum required sample size.			

Code	Credit Hours	Course Title	Prerequisites
1502605	2	Non Parametric Statistics	
Parametric vs. non parametric statistics, Hypothesis testing, Goodness of fit, Confidence interval, K-S technique, Wilcoxon rank sum test, Mann whitney test, Wilcoxon matched pair, Signed rank test, Kruskal-Wallis test, Friedman test, Non parametric measures of correlation (Spearman and Kendall's rank correlations), Non-parametric regression.			

Code	Credit Hours	Course Title	Prerequisites
1502608	2	Statistical Application Using Excel Software	
Introduction to computers, Excel Basics and database tools, Additional data entry techniques & using functions, Moving/copying data & formatting, Spreadsheet design & printing, Statistical analysis of the data, Charting Data with Graphs.			

Code	Credit Hours	Course Title	Prerequisites
1502609	2	Statistics and Study Design	
The different types of study designs and the appropriate statistical analyses used for each.			



Code	Credit Hours	Course Title	Prerequisites
1508(1)601	2	Fundamentals of Health Planning	
This course provides students with the knowledge and skills required for successful planning for different health organizations and systems with special emphasis on strategic planning. It covers areas related to development of Health Service Organization (HSO) missions, objectives, programmes, policies & procedures. Differentiates between types of plans e.g. strategic versus operational, single use versus standing plans.....etc. Contemporary issues in planning e.g. criticism of planning and how to plan in a dynamic environment.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)608	2	Introduction to Problem Solving and Decision Making	
The aim of this course is to introduce students to the basic principles of problem solving & decision making in order to be able to solve organizational health problems based on objective non- biased decisions. The skill of solving problems is acquired through learning and applying the nine step systematic framework for problem solving and decision making which can be implemented for solving problems in health care organizations.			

Code	Credit Hours	Course Title	Prerequisites
1508(1)611	2	Basic Principles of Health Program Evaluation	
This course introduces students to the basic principles and methods of program evaluation in health care organizations. It focuses on fundamental understanding of different types of evaluation approaches using appropriate standards needed for effective program evaluation.			

Code	Credit Hours	Course Title	Prerequisites
1508(3)603	2	Planning and Evaluation of Health Education Programs	
This course provides students with knowledge and skills related to planning, implementation and evaluation of health education programs in general and at different levels, individuals, groups, community and national programs.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)604	2	Essentials of Child and Adolescent Mental Health	
Introduction to classifications of mental & neurological disorders in children and adolescents. Introduction to common mental, neurological, psychosocial, and developmental problems in children and adolescents.			

## **21-Diploma in Public Health (Majoring Mental Health)**

*Students should fulfill a total of 26 credit hours:*

**1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 150605, 1509600

**2- Compulsory courses: 10 credit hours.**

1509(3)601, 1509(3)602, 1509(3)603, 1509(3)604, 1509(3)605, 1509(3)613

**3- Elective courses: 6 credit hours.**

1509(3)606, 1509(3)607, 1509(3)608, 1509(3)609, 1509(3)610, 1509(3)611, 1509(3)612, 1509(1)601, 1509(1)609, 1509(2)609, 1509(2)604, 1509(4)601, 1509(4)604, 1508(1)611, 1508(1)608, 1508(3)601, 1508(3)603, 150705

**1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني			4	1	
1509600	Principles of Family Health مبادئ صحة الأسرة	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

**2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1509(3)601	Fundamentals of Mental Health مبادئ الصحة النفسية	1			1	
1509(3)602	Introduction to Medical Psychology مقدمة في علم النفس الطبي	2			2	
1509(3)603	Introduction to Psychiatry مقدمة في الطب النفسي	1	2		2	
1509(3)604	Essentials of Child and Adolescent Mental Health أساسيات الصحة النفسية للطفل و المراهق	2			2	
1509(3)605	Essentials of Adult and Elderly Mental Health أساسيات الصحة النفسية للبالغ والمسن	2			2	
1509(3)613	Introduction to Psychological Testing مقدمة في القياسات النفسية	1			1	
<b>Total</b>		<b>9</b>	<b>2</b>		<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1509(3)606	Essentials of Behavior Modification أساسيات التعديل السلوكي	2			2	
1509(3)607	Essentials of Counseling in Mental Health أساسيات الإرشاد النفسي في الصحة النفسية	2			2	
1509(3)608	Basic Field Training in Mental Health Problems تدريب حقل في مشاكل الصحة النفسية	1		4	2	
1509(3)609	Basics of Prevention & control of substance abuse أساسيات الوقاية والمكافحة لتعاطي المخدرات	2			2	
1509(3)610	Basics of Reproductive Mental Health أساسيات الصحة النفسية الإنجابية	2			2	
1509(3)611	Basics of Mental Health Care in Chronic Diseases أساسيات الرعاية النفسية في الأمراض المزمنة	2			2	
1509(3)612	Basics of Mental Health Services أساسيات خدمات الصحة النفسية	2			2	
1509(1)601	Principles of Genetics أساسيات الوراثة	2			2	
1509(1)609	Principles of Growth and Development أساسيات النمو والتطور	1			1	
1509(2)609	Risk Taking Behavior among Adolescents and Youth السلوك الخطر للمراهقين والشباب	2			2	
1509(2)604	Care of School Children and Adolescents with Special Needs رعاية اطفال المدارس والمراهقين ذوي الاحتياجات الخاصة	2			2	
1509(4)601	Essentials of Geriatric Health أساسيات صحة المسنين	2			2	
1509(4)604	Health Related Behavior and Quality of Life السلوكيات المرتبطة بالصحة ونوعية الحياة	2			2	
1508(1)611	Basic Principles of Health Program Evaluation أساسيات تقييم البرامج الصحية	2			2	
1508(1)608	Introduction to Problem Solving and Decision Making مقدمة لحل المشكلات واتخاذ القرار	2			2	
1508(3)601	Basics of Health Education and Health Promotion أساسيات التثقيف الصحي وتعزيز الصحة	2			2	
1508(3)603	Planning and Evaluation of Health Education Programs تخطيط و تقييم برامج التثقيف الصحي	2			2	
150705	Ethics and Law for Health Professionals الأخلاقيات والقانون لأفراد الفريق الصحي	2			2	

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## **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology & Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1509600	2	Principles of Family Health	
This course is designed to provide the students with the key theoretical frameworks relevant to understanding the concept of family health and the major social, cultural, biological and environmental factors influencing it. Students will be able to understand types of families and stages of family evolution. Student will require knowledge on the services available to all family members relevant to their ages.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)601	1	Fundamentals of Mental Health	
Mental health concepts and public health importance, neuroscience of mental health, classification and manifestations, the Bio-psychosocial Model, models of mental health care, principles and ingredients of mental health care, integrating mental health care into general health services.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)602	2	Introduction to Medical Psychology	
Introduction to personality development and different personality theories, defense mechanisms, emotional development, cognitive development, development of language, aggression and moral development. Introduction to psychological testing, purposes/principles of psychological testing, intelligence tests, personality tests, neuropsychological tests, and psychiatric rating scales.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)603	2	Introduction to Psychiatry	
Introduction to psychiatric examination, diagnostic criteria of common psychiatric disorders including schizophrenia, mood disorders, anxiety disorders, dementia, and management of common psychiatric disorders in primary care setting.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)604	2	Essentials of Child and Adolescent Mental Health	
Introduction to classifications of mental & neurological disorders in children and adolescents. Introduction to common mental, neurological, psychosocial, and developmental problems in children and adolescents.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)605	2	Essentials of Adult and Elderly Mental Health	
Introduction to classifications of mental & neurological disorders in adults and elderly. Introduction to common mental & neurological disorders in adults and elderly.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)613	1	Introduction to Psychological Testing	
Introduction to definitions, classification and purposes of psychological testing. Basic principles of psychological testing, intelligence tests, objective personality tests, projective personality tests, neuropsychological tests, and psychiatric rating scales.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)606	2	Essentials of Behavior Modification	
Introduction to Human health and behavior, basic principles of behavior modification, basic behavior modification techniques.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)607	2	Essentials of Counseling in Mental Health	
Introduction to main counseling skills in mental health, individual counseling, group therapy, and cognitive and behavioral approaches in counseling.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)608	2	Basic Field Training in Mental Health Problems	
To acquire basic knowledge and clinical skills regarding the presenting symptoms and the clinical picture of the most common neuro-psychiatric disorders encountered in our culture and thus the post-graduate student finds the link between his pre-clinical and clinical studies.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)609	2	Basics of Prevention & Control of Substance Abuse	
Definitions& classification of dependence producing substances, magnitude of the problem, etiology and risk factors of the problem, protective factors, , impact of the problem on individual, family and community & prevention and control of substance abuse.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)610	2	Basics of Reproductive Mental Health	
Definitions, common mental and psychosocial problems of women in their age, etiology, main preconception mental health problems, common pregnancy problems, common post partum problems, pregnancy loss, infertility, menopause problems.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)611	2	Basics of Mental Health Care in Chronic Diseases	
Introduction to principles of mental health care of patients, sick role and health, etiology related to chronic physical illness, improving patient's understanding, recall, satisfaction and compliance, psychosocial aspects and intervention.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)612	2	Basics of Mental Health Services	
Introduction to description and analysis of mental health services around the world, current status of service organization nationally and internationally, guidance for organizing mental health services.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)609	1	Principles of Growth and Development	
The course is meant to provide the students with the scientific basis needed to asses the growth and development of children. By the end of the course students would be able to recognize abnormal growth using different tools such as growth curves and growth charts.			

Code	Credit Hours	Course Title	Prerequisites
1509(2)609	2	Risk Taking Behavior among Adolescents and Youth	
Characteristics and developmental features of adolescents. Health profile of youth Different risk taking behavioral problems among adolescents as smoking, drug addiction, AIDS, accidents, nutritional problems.....etc. Intervention programs for prevention and control of such problems.			

Code	Credit Hours	Course Title	Prerequisites
1509(2)604	2	Care of School Children and Adolescents with Special Needs	
By the end of this course students will be able to identify definition of handicapped children. Epidemiology of handicapping condition. Etiology and determinants of handicap. Assessment of handicapping condition. Impact of the handicapping condition. Preventive measures and the role of the physician in prevention. Available services of this group in Egypt. Visits to some institutions.			

Code	Credit Hours	Course Title	Prerequisites
1509(4)601	2	Essentials of Geriatric Health	
Definitions-factors affecting aging-theories of aging-biology of aging-anatomical and physiological aging changes.			

Code	Credit Hours	Course Title	Prerequisites
1509(4)604	2	Health Related Behaviour and Quality of Life	
Successful aging-health related behaviour-life style modifications-quality of life determinants and indicators			

Code	Credit Hours	Course Title	Prerequisites
1508(1)611	2	Basic Principles of Health Program Evaluation	
This course introduces students to the basic principles and methods of program evaluation in health care organizations. It focuses on fundamental understanding of different types of evaluation approaches using appropriate standards needed for effective program evaluation.			



Code	Credit Hours	Course Title	Prerequisites
1508(1)608	2	Introduction to Problem Solving and Decision Making	
The aim of this course is to introduce students to the basic principles of problem solving & decision making in order to be able to solve organizational health problems based on objective non- biased decisions. The skill of solving problems is acquired through learning and applying the nine step systematic framework for problem solving and decision making which can be implemented for solving problems in health care organizations.			

Code	Credit Hours	Course Title	Prerequisites
1508(3)601	2	Basics of Health Education and Health Promotion	
This course provides students with understanding of principles of health education and provides knowledge about health education practice, concept, tools, and application of health education in different settings. The course emphasizes intersectoral collaboration. It covers the rational moving from health education to health promotion and contribution of behavioral sciences to health promotion, health promotion principles and practice. Health promoters and their roles, community health promotion programs, models of health promotion, context of health promotion, agents of the health promotion matrix.			

Code	Credit Hours	Course Title	Prerequisites
1508(3)603	2	Planning and Evaluation of Health Education Programs	
This course provides students with knowledge and skills related to planning, implementation and evaluation of health education programs in general and at different levels, individuals, groups, community and national programs.			

Code	Credit Hours	Course Title	Prerequisites
150705	2	Ethics and Law for Health Professionals	
Definitions of ethics, law, risk management and public health will be clarified. Major ethical and legal conflicts in public health will be addressed. Justifying public health programs and policies will be discussed. Human rights and public health will be explained. The course will also tackle understanding of the public health profession's roles and professional values.			

## 22- Diploma in Public Health (Majoring Geriatric Health)

*Students should fulfill a total of 26 credit hours:*

### 1- Basic requirements: 10 credit hours.

150601, 150602, 150603, 150604, 1509600

### 2- Compulsory courses: 10 credit hours.

1509(4)601, 1509(4)602, 1509(4)603, 1509(4)604, 1509(4)605

### 3- Elective courses: 6 credit hours.

1509(3)606, 1509(3)607, 1509(3)608, 15092609, 1509(3)605

### 1- Basic requirements: 10 credit hours

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1509600	Principles of Family Health مبادئ صحة الأسرة	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

### 2- Compulsory courses: 10 credit hours

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1509(4)601	Essentials of Geriatric Health أساسيات صحة المسنين	2			2	
1509(4)602	Physical Problems of the Elderly المشاكل البدنية للمسنين	2			2	
1509(4)603	Principles of Medicine for the Elderly مبادئ طب المسنين	1	2		2	
1509(4)604	Health Related Behavior and Quality of Life السلوكيات المرتبطة بالصحة و نوعية الحياة	2			2	
1509(4)605	Special Issues for the Old مواضيع خاصة بالمسنين	2			2	
<b>Total</b>		<b>9</b>	<b>2</b>		<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1509(4)606	Women Issues in Later Years شئون المرأة في السنوات المتقدمة	2			2	
1509(4)607	Demography of Aging and Care in the Community ديموجرافية ورعاية المسنين في المجتمع	2			2	
1509(4)608	Nutrition of the Elderly تغذية المسنين	2			2	
1502609	Statistics and study design الاحصاء ونوع الدراسة	1	2		2	
1509(3)605	Essentials of adult and elderly mental health أساسيات الصحة النفسية للبالغ والمسن	2			2	

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>150603</b>	<b>2</b>	<b>Fundamentals of Health Administration &amp; Behavioral Sciences</b>	

This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>150604 150605</b>	<b>2</b>	<b>Health Survey Field Training</b>	

This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>1509600</b>	<b>2</b>	<b>Principles of Family Health</b>	

This course is designed to provide the students with the key theoretical frameworks relevant to understanding the concept of family health and the major social, cultural, biological and environmental factors influencing it. Students will be able to understand types of families and stages of family evolution. Student will require knowledge on the services available to all family members relevant to their ages.

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>1509(4)601</b>	<b>2</b>	<b>Essentials of Geriatric Health</b>	

Definitions-factors affecting aging-theories of aging-biology of aging-anatomical and physiological aging changes.

<b>Code</b>	<b>Credit Hours</b>	<b>Course Title</b>	<b>Prerequisites</b>
<b>1509(4)602</b>	<b>2</b>	<b>Physical Problems of the Elderly</b>	

Common physical problems of the elders and their characteristics in the elderly.

Code	Credit Hours	Course Title	Prerequisites
1509(4)603	2	Principles of Medicine for the Elderly	
Aging differences in clinical vital signs and modified forms of some disease presentation. Proper history taking and pathological characteristics. Cardiovascular diseases, cerebrovascular, gastrointestinal, central nervous system, locomotor, respiratory, metabolic, special senses, and neoplastic problems, their diagnosis and management.			

Code	Credit Hours	Course Title	Prerequisites
1509(4)604	2	Health Related Behaviour and Quality of Life	
Successful aging-health related behaviour-life style modifications-quality of life determinants and indicators			

Code	Credit Hours	Course Title	Prerequisites
1509(4)605	2	Special Issues for the Old	
Aging brain- social aspects of aging- comprehensive geriatric assessment- some ethical dilemmas in the care of the old			

Code	Credit Hours	Course Title	Prerequisites
1509(4)606	2	Women Issues in Later Years	
Physical and psychological changes with advancing age, their impact on the quality of life, and methods of intervention. Most common health problems; obesity, cancer breast, gynaecological dysfunction, violence, osteoporosis and urinary incontinence.			

Code	Credit Hours	Course Title	Prerequisites
1509(4)607	2	Demography of Aging and Care in the Community	
Trends of changes of life expectancy in developing and developed countries-morbidity and mortality changes-expectations for the coming years in developing countries-community services in developed countries-analysis of the situation of community services in developing countries.			

Code	Credit Hours	Course Title	Prerequisites
1509(4)608	2	Nutrition of the Elderly	
Malnutrition problems-dietary needs and changes-nutritional assessment Factors affecting nutritional status of the elders. Nutritional assessment. Relation between some nutrients and specific diseases. Proper diet for the elderly with nutritional education of vitamins and minerals supplements. Diet as important tool in improving QOL.			

Code	Credit Hours	Course Title	Prerequisites
1502609	2	Statistics and Study Design	
The different types of study designs (Cross-sectional, case-control, cohort and clinical trials) and the appropriate statistical analyses used for each.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)605	2	Essentials of Adult and Elderly Mental Health	
Introduction to classifications of mental & neurological disorders in adults and elderly. Introduction to common mental & neurological disorders in adults and elderly.			

## **23-Diploma in Public Health (Majoring Public Health Nursing)**

*Students should fulfill a total of 26 credit hours:*

### **1- Basic requirements: 10 credit hours.**

150601, 150602, 150603, 150604, 1509600

### **2- Compulsory courses: 10 credit hours.**

1509(5)601, 1509(5)602, 1509(5)603, 1509(5)604, 1509(1)601, 1509(1)604

### **3- Elective courses: 6 credit hours.**

1509(5)605, 1509(5)606, 1509(5)607, 1509(5)608, 1509(2)607, 1506(3)615, 1509(3)606, 1508(3)603

### **1- Basic requirements: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisite s
150601	Fundamentals of Epidemiology and Biostatistics أساسيات الوبائيات والاحصاءات الحيوية	2			2	
150602	Fundamentals of Environmental Health أساسيات صحة البيئة	2			2	
150603	Fundamentals of Health Administration & Behavioral Sciences أساسيات الادارة الصحية والعلوم السلوكية	2			2	
150604	Health Survey المسح الصحي	1			1	
150605	Field Training التدريب الميداني	-		4	1	
1509600	Principles of Family Health مبادئ صحة الأسرة	2			2	
<b>Total</b>		<b>9</b>		<b>4</b>	<b>10</b>	

### **2- Compulsory courses: 10 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequisites
1509(5)601	Fields of Practice of the Community Health Nursing. أماكن ممارسة تمريض صحة المجتمع	2			2	
1509(5)602	Methods of Public Health Nursing طرق تمريض الصحة العامة	1	2		2	
1509(5)603	Problems of Public Health Nursing مشاكل تمريض الصحة العامة	2			2	
1509(5)604	Socio-cultural Context in Public Health Nursing السياق الاجتماعي والثقافي في مجال تمريض الصحة العامة	1			1	
1509(1)601	Principles of Genetics and Child Growth and Development المبادئ الوراثية ونمو و تطور الطفل	2			2	
1509(1)604	Family Planning تنظيم الأسرة	1			1	
<b>Total</b>		<b>9</b>	<b>2</b>		<b>10</b>	

### **3- Elective Courses: 6 credit hours**

Code	Course Title	Theoretical	Practical/ Clinical	Field	Credit Hours	Prerequi sites
1509(5)605	Community Health Nursing Field Training تدريب حقلي تخصصي في تمريض صحة المجتمع			4	1	
1509(5)606	Public Health Nursing for Elderly تمريض الصحة العامة لكبار السن	2			2	
1509(5)607	Introduction to Occupational Health Nursing مقدمة في تمريض الصحة المهنية	2			2	
1509(2)607	The Problem of Smoking and How to Quit مشكلة التدخين وكيفية الإقلاع	2			2	
1506(3)615	Environmental Infection Control in Health-Care Facilities مكافحة العدوى البيئية في مرافق الرعاية الصحية	2			2	
1509(3)606	Behavior Modification in Mental Health التعديل السلوكي في الصحة النفسية	2			2	
1508(3)603	Planning and Evaluation of Health Education Programs تخطيط و تقييم برامج التثقيف الصحي	2			2	

### **Course Description**

Code	Credit Hours	Course Title	Prerequisites
150601	2	Fundamentals of Epidemiology and Biostatistics	
Scope & uses of epidemiology. Natural history of the diseases, requisites for perpetuation of infectious diseases, magnitude and risk factors of non communicable diseases. Basic biostatistics concepts, Basic principle of epidemiologic methods. Presentation of data and descriptive analysis of ungrouped data.			

Code	Credit Hours	Course Title	Prerequisites
150602	2	Fundamentals of Environmental Health	
Introduction to environment and environmental health, water sources, water uses and classification, water pollution, point and non-point sources of pollution, types of pollutants, their source and effect, air pollution, types of air pollutants, their source and effect (including climate change, ozone depletion, acid rain, etc), soil pollution, types of soil pollutants, their source and effect, control measures for different types of pollution.			



Code	Credit Hours	Course Title	Prerequisites
150603	2	Fundamentals of Health Administration & Behavioral Sciences	
This course aims at introducing students to the basic managerial concepts, processes and techniques as a first step in preparing them to deliver high quality health care. Managerial processes discussed include: planning, decision making, organizing, leadership, supervision, staffing, and evaluation. Among the managerial issues and techniques included are: quality health care and problem solving. It also aims to introduce students with basic principles of behavioral science to promote health and prevent disease.			

Code	Credit Hours	Course Title	Prerequisites
150604 150605	2	Health Survey Field Training	
This course provides the students with basic knowledge to plan, and implement health surveys, analyze survey data, and disseminate findings.			

Code	Credit Hours	Course Title	Prerequisites
1509600	2	Principles of Family Health	
This course is designed to provide the students with the key theoretical frameworks relevant to understanding the concept of family health and the major social, cultural, biological and environmental factors influencing it. Students will be able to understand types of families and stages of family evolution. Student will require knowledge on the services available to all family members relevant to their ages.			

Code	Credit Hours	Course Title	Prerequisites
1509(5)601	2	Fields of Practice of the Community Health Nursing	
This course is designed to prepare the student for meeting the special health needs of individuals, families, and groups in the community. It deals with the professional role as a member of the health team in each area. It includes: general principles and concepts of public health nursing, Maternal & child health. School, occupational and geriatric health nursing and the primary health care setting.			

Code	Credit Hours	Course Title	Prerequisites
1509(5)602	2	Methods of Public Health Nursing	
This course provides opportunities for students to apply public health nursing concepts, theories and processes in the care of family group and community. It includes: various methods of public health nursing practices, nursing process, recording and reporting, mobile unites, health education, counseling, and audiovisual aids.			

Code	Credit Hours	Course Title	Prerequisites
1509(5)603	2	Problems of Public Health Nursing	
Preparing the students to study the selected current health problems in the community and to improve the practice of public health nursing and to identify risk factors affecting it. It includes: community health nursing programs, solving problems arising at the national level such as substance abuse, violence. Study the staff performance problem that prevents the desired output achievements.			

Code	Credit Hours	Course Title	Prerequisites
1509(5)604	1	Socio-cultural Context in Public Health Nursing	
This course provides the student with basic body of knowledge of social sciences and its relation to public health nursing practice. The course content includes: human behavior, social and cultural factors affecting health behavior, defensive and coping behavior, concepts of development in childhood and the role of the public health nurse in this area.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)601	1	Principles of Genetics	
The course is meant to provide the students with the scientific basis needed to asses the growth and development of children and the genetic basis for growth. By the end of the course students would be able to recognize abnormal growth using different tools such as growth curves and growth charts and to understand the different modes of inheritance and genetic mutations.			

Code	Credit Hours	Course Title	Prerequisites
1509(1)604	1	Family Planning	
The course will provide fundamental understanding of the concept and status of fertility and factors affecting it, globally and in Egypt. Students will also be familiar with the different contraceptive methods and family planning programs implemented in Egypt and their impact. Finally they will acquire the background information required to provide quality family planning services at primary level.			

Code	Credit Hours	Course Title	Prerequisites
1509(5)605	1	Community Health Nursing Field Training	
The students will make field visits with their supervisors in cooperation with the nursing managers in different of public health settings. During these visits the students will observe and assess different nursing functions in a specific working environment. The students will write a report about those activities.			

Code	Credit Hours	Course Title	Prerequisites
1509(5)606	2	Public Health Nursing for Elderly	
This course introduces students to the basic concepts of the elderly care and helps them to function as a specialist in this area of public health nursing practice. The course contains: who is the elderly, aging process, problems and needs of old age, settings of care of old people, physical and psychological aspects of nursing aged people and role of the nurse in caring of elderly.			

Code	Credit Hours	Course Title	Prerequisites
1509(5)607	2	Introduction to Occupational Health Nursing	
This course will prepare the student to apply public health nursing principles of occupation as a functional component within the community health program. The course contains: Nurses qualifications. Fields of occupational health nursing. Occupational health program, health team members' aspects and responsibilities. Work hazards in different work places. Occupational health center and different nursing procedures.			

Code	Credit Hours	Course Title	Prerequisites
1509(2)607	2	The Problem of Smoking and How to Quit	
The concept of health. Risks of smoking and benefits of quitting. Triggers for smoking. Styles of responses to difficult situations. Areas and domains of smoking prevention.			

Code	Credit Hours	Course Title	Prerequisites
1506(3)615	2	Environmental Infection Control in Health-Care Facilities	
Environmental sanitation in health care facilities, water supply, wastewater, solid waste, hazardous waste, ventilation, temperature, humidity, lighting, cleanliness, laundry, kitchen, vector control, nosocomial infections, quality control in hospitals.			

Code	Credit Hours	Course Title	Prerequisites
1509(3)606	2	Behavior Modification in Mental Health	
Human health and behavior, counseling skills, principles of behavior modification, behavioral and cognitive approaches to management of mental health problems, behavior modification techniques.			

Code	Credit Hours	Course Title	Prerequisites
1508(3)603	2	Planning and Evaluation of Health Education Programs	
This course provides students with knowledge and skills related to planning, implementation and evaluation of health education programs in general and at different levels, individuals, groups, community and national programs.			