



## اللائحة الدراسية:

الفصل الدراسي	عدد الساعات الأسبوعية			عدد الساعات	اسم المقرر	كود المقرر
	تمرين	عملي	نظري			
الأول	0	4	3	7	كيمياء عامة	104ك
	0	4	2	6	نبات عام	101ن
	0	4	2	6	حيوان عام	101ح
	0	2	2	4	جيولوجيا طبيعية وتاريخيه	101ج
	0	2	2	4	ضوء وكهربية ومغناطيسية	103ف
	1	0	2	3	تفاضل وتكامل وجبر	105ر
	1	0	2	3	لغة انجليزية	101ل
الثاني	0	4	3	7	كيمياء عامة	105ك
	0	4	2	6	نبات عام	102ن
	0	4	2	6	حيوان عام	102ح
	0	2	2	4	بلورات ومعادن	102ج
	0	2	2	4	حرارة وخواص مادة	104ف
	1	0	2	3	تفاضل وتكامل وهندسة	106ر
	1	0	2	3	لغة انجليزية	102ل

السنة الثانية: 68 ساعة موزعة على النحو التالي :

الفصل الدراسي	عدد الساعات الأسبوعية			عدد الساعات	اسم المقرر	كود المقرر
	تمرين	عملي	نظري			
الأول	0	4	3	7	حليبات وحشرات	201ح
	0	4	3	7	نبات اقتصادى وطحالب وبكتريا	201ن
	1	0	2	3	الديناميكا الحرارية الكيميائية	205ك
	0	4	2	6	كيمياء عضوية	206ك
	0	2	2	4	ضوء فيزيائي	207ف
	1	0	2	3	رياضيات	207ر
	0	0	2	2	حقوق الانسان والمبادئ القانونيه العامه	بدون
	1	0	2	3	لغة انجليزية	201ل
الثاني	0	4	3	7	لافقاريات وحشرات	202ح
	0	4	3	7	بيئة وفسولوجيا البذور وتصنيف زهري	202ن
	0	4	2	6	كيمياء غير عضوية	207ك
	1	0	2	3	كيمياء عضوية	208ك
	0	2	2	4	فيزياء ذرية واطياف	208ف
	0	2	1	3	علوم الحاسب	208ر
	1	0	2	3	لغة انجليزية	202ل



السنة الثالثة : 66 ساعة موزعة على النحو التالي :

الفصل الدراسي	عدد الساعات الأسبوعية			عدد الساعات	اسم المقرر	كود المقرر
	تمرين	عملي	نظري			
الأول	0	4	3	7	تشريح نبات وفيروسات ومناعة	301ن
	1	2	3	6	علم الخلية وتلوث البيئة	302ن
	0	4	2	6	فطريات	303ن
	0	2	3	5	مجتمعات نباتية اكتينوميستات وريكستا	304ن
	0	2	3	5	كيمياء عضوية فيزيائية وكيمياء تحليلية	317ك
	1	0	1	2	مبادئ علم الحاسب	338ر
	1	0	2	3	لغة انجليزية	301ل
الثاني	1	4	4	9	شكل مقارن - تصنيف زهري	305ن
	0	2	2	4	فسيولوجي وبيئة الطحالب	306ن
	0	2	2	4	ميكروبيولوجيا التربة	307ن
	0	4	3	7	فسيولوجيا النبات	308ن
	0	2	3	5	كيمياء فيزيائية - كيمياء المنتجات الطبيعية	318ك
	0	0	1	1	احتمالات واحصاء	339ر
	0	0	2	2	لغة انجليزية	302ل

السنة الرابعة: 72 ساعة موزعة على النحو التالي :

الفصل الدراسي	عدد الساعات الأسبوعية			عدد الساعات	اسم المقرر	كود المقرر
	تمرين	عملي	نظري			
الأول	0	0	2	2	مناخ وجغرافيا نباتية	401ن
	1	2	2	5	احياء مائية ميكروبية	402ن
	1	2	2	5	وراثة	403ن
	1	8	4	13	فسيولوجيا النبات - امراض نبات	404ن
	1	2	2	5	منتجات طبيعية واطياف	416ك
	0	0	2	2	بحث أو مقال	بدون
	1	0	2	3	لغة انجليزية	401ل
الثاني	1	2	2	5	نظام بيئي وقلورا	405ن
	0	4	2	6	فسيولوجيا الكائنات	406ن
	1	4	3	8	علاقة العائل بالطفيل - فسيولوجي متقدم	407ن
	2	2	3	7	فسيولوجيا الخلية - هندسة وراثية	408ن
	0	2	2	4	كيمياء حيوية	401ك ح
	0	0	2	2	بحث او مقال	بدون



## المحتوى العلمى:

كود المقرر: 104 ك اسم المقرر: كيمياء عامة

Physical Chemistry - Gaseous state – Thermochemistry - Chemical equilibrium – Solutions - Problems in physical Chemistry - Inorganic Chemistry - Chemical Calculations - Atomic spectra and Quantum numbers - Properties of of periodic table - Chemical bonding. - Practical part

كود المقرر: 101 ن اسم المقرر: نبات عام

General characters of monocot and dicot plants - Types of seeds and germination - Different shapes of plant organs and their modifications - Adaptation of plants to different habitats - Study the organisms' diversity - Classification the organisms in Plant kingdom according to their specific characters - Study the general characters for each group in the classification using an example for each one.

كود المقرر: 101 ح اسم المقرر: حيوان عام

Essential of anatomy and physiology of human digestive system / Practical: External feature and musculature of Egyptian Toad - Essential of anatomy and physiology of human cardiovascular system / Practical: Anatomy of digestive & urinary systems of Egyptian toad - Essential of anatomy and physiology of human respiratory system / Practical: Anatomy of male and female reproductive systems (of Egyptian toad - Essential of anatomy and physiology of human renal system / Practical: Anatomy of circulatory systems of Egyptian toad - Essential processes of human neurophysiology / Practical: Anatomy of nervous system of Egyptian toad - Essential processes of human endocrinology / Practical: Skeleton of Egyptian toad - General and Functional cytology / Practical: General histology of connective animal tissues - General and Functional cytology / Practical: General histology of muscular and nervous animal tissues - General and descriptive animal histology / Practical: Functional histology (tissues of digestive, respiratory systems - General and descriptive animal histology - General and descriptive animal histology

كود المقرر: 101 ج اسم المقرر: جيولوجيا طبيعية وتاريخية

مقدمة فى علم الجيولوجيا - نشأة الكون - التركيب الداخلى للأرض - التراكيب الولية و الثانوية فى الصخور الرسوبية - علم المعادن - علم الصخور - التجوية الفيزيائية و الميكانيكية و الكيمائية - العوامل الهدمية و البنائية للرياح و الكثبان الرملية و اشكالها - البحار و المحيطات - المياه الجوفية - الزلازل و البراكين و نظرية الألواح التكتونية  
كود المقرر: 103 ف اسم المقرر: ضوء كهربية و مغناطيسية

Nature of light - Refraction through lenses - Optical instruments - Dispersion - Photometry - Charge and matter, Electric current - Electric field for a group of point charges - Electric field of continuous charges - Electric potential and applications, Condensers - Coulomb's law, Electric field - Electric dipole and transient current - Dielectric current and Static magnetism - Electromotive forces and induction

كود المقرر: 105 ر اسم المقرر: تفاضل و تكامل و جبر

المتباينات - النهايات والاتصال - المشتقات - تطبيقات على المشتقات - الاستنتاج الرياضى - الكسور الجزئية

كود المقرر: 105 ك اسم المقرر: كيمياء عامة

Physical Chemistry - The Phenomena of electrolysis, Faraday's laws - Electrical Conductance, EMF- .Electrod Potential, Chemical and electrical energy - Cell reaction and electrochemical series - Solid state and Crystallographic systems. Inorganic Chemistry - The VSEPR model - V.B. Theory (Hybridization of orbitals - (Molecular geometry and Resonance - M.O. Theory - Oxidation- Reduction reactions - Practical part

كود المقرر: 102 ن اسم المقرر: نبات عام

Colloids - Plant cell Diffusion, Osmosis and Permeability - Plant water relationships – Enzymes – Photosynthesis – Respiration - Plant Growth - Plant cell components (living and non-living) - Cell wall - Simple tissues (Meristematic and permanent) - Epidermal tissues and complex tissues - Plant organs (monocot & dicot), stem, root and leaves - Secondary structures in plant, Periderm, Tylosis, Lenticels



كود المقرر: 102 ح اسم المقرر: حيوان عام

Instruments in taxonomy - Bases of taxonomy - Five kingdoms theory - General characters and taxonomy of Sarcodina and Ciliophora - General characters and taxonomy of Zoomastigophora and Apicomplexa - General characters and taxonomy of Porifera - Revision - General characters and taxonomy of Hydrozoa and Scyphozoa - General characters and taxonomy of Anthozoa - General characters and taxonomy of turbellarians - General characters and taxonomy of monogeneans - General characters and taxonomy of Cestoda - General characters and taxonomy of Nematoda

كود المقرر: 102 ج اسم المقرر: بلورات ومعادن

Course overview; what is Geology - Crystal, Elements of crystals - Crystal symmetry, Elements of symmetry - Crystal systems (I) - Crystal systems (II) - Hemihedral & Holohedral forms - Mid-Term Examination, and review - Mineralogy, Physical Mineralogy - Physical Properties of Minerals - Density and Specific Gravity - Origin of Minerals, Classification of Minerals, Chemical Classification - Rocks, Rock cycle

كود المقرر: 104 ف اسم المقرر: حرارة وخواص مادة

Temperature and thermometers - Heat estimation - Thermal expansion - Change of phase - Heat transfer - Kinetic theory of gases - Units and dimensions (Fundamental units - Derived units - Dimension theory and its applications) - Scalar and vectors - Linear motion - Planer motion - Newton's second law. - Simple harmonic motion - Simple Moment of inertia for some bodies - Simple pendulum - Some experiments - Hook's law - Elasticity moduli - Relation between elasticity moduli - Stress-Strain curves - Some exp - Pressure - Pascal's rule - Archimede's rule - Bernoulli's equation - Surface tension - Some exp part 1 - Pressure - Pascal's rule - Archimede's rule - Bernoulli's equation - Surface tension - Some exp part 2 - Bernoulli's equation Viscosity (Poiseuille's formula - Stokes law) - Some experiments. Part 1 - Bernoulli's equation Viscosity (Poiseuille's formula - Stokes law) - Some experiments. Part 2

كود المقرر: 106 ر اسم المقرر: تفاضل وتكامل وهندسة

مجموع تكامل ريمان - تكامل ريمان - طرق التكامل - تكامل الدوال المثلثية - تطبيقات التكامل - المساحة - طول المنحني - الحجم - الخط المستقيم - الدائرة

كود المقرر: 102 ل اسم المقرر: لغة انجليزية

Acids. Reading - Matter and Volume. Reading - Force and Pressure. Reading - Modals. Grammar - Pronoun Determiners. Grammar - Relative Clauses. Grammar - Adjectives and Adverbs. Grammar - Conjunctions and Prepositions Grammar - Writing Instructions. Writing - Describing. Writing - Listing Characteristics. Writing - Skimming. Reading - Scanning. Reading - Finding the Pattern of Organization. Reading - The Properties of Air. Reading

كود المقرر: 201 ح اسم المقرر: حبيبات وحشرات

Basis of chordates taxonomy, Cephalochordata - General Characters and taxonomy of Agnatha - Characters and taxonomy of Chondrichthyes - Characters and taxonomy of Osteichthyes - Characters and taxonomy of Amphibia - Characters and taxonomy of Reptilia - Characters and taxonomy of Aves - Characters and taxonomy of Mammalia - Systematic position and general characters of 10-insects, Attributes of survival, dominance of insects - General insect morphology Head, Thorax and abdomen in locust or cockroach - General insects anatomy (notes about all systems in insect - Bionomics and Metamorphosis of locust or cockroach

كود المقرر: 201 ن اسم المقرر: نبات اقتصادي وطحالب وبيكتريا

Introduction to economic plants and their classification on the basis of their use - Fibers and fibrous plants, Drink plants and Latex and Gum - Medicinal plants, drugs and antibiotics and Volatile and non-volatile oils - Spices and Condiments, Gums and Resins and Tannins and Dyes - Introduction to bacteria, The bacterial cell shapes, sizes and arrangement, Chemical composition of bacterial cell - Bacterial nutrition, Bacterial endospore - Reproduction of bacteria - Bacterial growth, physical and chemical factors affecting the bacterial growth - Phytoplankton, Reproduction and life history in algae - Benthos, Utilization of algae - Algal



nutrition - Classification of algae - Different groups of algae

كود المقرر: 205 ك اسم المقرر: الديناميكا الحرارية الكيميائية

Introduction of thermodynamics - First law of thermodynamics - Second law of thermodynamics - Third law of thermodynamics - Chemical equilibrium in solids

كود المقرر: 206 ك اسم المقرر: كيمياء عضوية

Introduction of organic compounds - Nomenclature of organic compounds - Chemistry of hydrocarbons - Chemistry of alkyl halides - Chemistry of Alcohols - Chemistry of Aldehydes and ketones - Chemistry of Acids - Chemistry of acids derivatives - Chemistry of amines - Chemistry of ethers

كود المقرر: 207 ف اسم المقرر: ضوء فيزيائي

Simple harmonic motion part1 - Simple harmonic motion part2 - Interference part1 - Interference part2 - Interference part3 - Interference part4 - Interference part5 - Diffraction of light part1 - Diffraction of light part2 - Diffraction of light part3 - Polarization of light part1 - Polarization of light part2 - Polarization of light part3 - Polarization of light part4

كود المقرر: 207 ر اسم المقرر: رياضيات

Polar coordinates and its applications - The function of two variables, continuity, the derivation and applications - Study of double integration in different coordinates - Improper integrals - Leibniz's, Taylor and Maclaurin theories

كود المقرر: بدون اسم المقرر: حقوق الانسان والمبادئ القانونية العامة

Identification of human rights and its international importance - Types of human rights - Human rights in Islam religion and comparative legislation - Mechanisms of human rights protection

كود المقرر: 202 ح اسم المقرر: لافقاريات وحشرات

Introduction to coelomic invertebrates - Phylum Annelida - Phylum Arthropoda part 1 - Phylum Arthropoda part 2 - Phylum Mollusca - Phylum Echinodermata part 1 - Phylum Echinodermata part 2 - Importance of coelomic invertebrates - Position of head capsule and head appendages - Forms of thoracic segment and types of appendages - The abdomen and its appendages (visceral, caudal and genital appendages) - Types of metamorphosis, larvae and pupae

كود المقرر: 202 ن اسم المقرر: بيئة (غطاء نباتي وتربة وفسيلوجيا البذور وتصنيف زهري)

Chemical composition of seed - Toxins in seeds - Dormancy - Physiology of seed germination - Utilization of food reserves for seedling growth - Phytohormones - Definition of Plant Ecology - Population, Community and Ecosystem- Ecological amplitude - Factors of the Environment - Origin and Development of Vegetation-Succession of Vegetation: hydrosere, xerosere - Field Studies of Vegetation - Soil Physical & chemical properties - Soil organic matter and humus - Plant Taxonomy: Principals of plant taxonomy, Types and Structure of flowers, inflorescence and fruits - Pollination / Fertilization - Representative families of Monocots - Representative families of Dicots

كود المقرر: 207 ك اسم المقرر: كيمياء غير عضوية

Introduction to S-P block - Hydrogen and hydrides - Group I to VII - Group O

كود المقرر: 208 ك اسم المقرر: كيمياء عضوية

Introduction of organic compounds - Nomenclature of aromatic compounds - Benzene and reactions of aromatic compounds - Alkyl aromatic compounds - Nitro aromatic compounds - Amino aromatic compounds - Phenols - Aromatic aldehydes and ketones - Aromatic acids - Aromatic sulphonic acid - Introduction of bifunction compounds - different families of bifunction compounds

كود المقرر: 208 ف اسم المقرر: فيزياء ذرية واطياف

Cathode ray - Electromagnetic radiation - Spectra - Atomic models - Atomic hydrogen spectra - Bohr theory & hydrogen atom - Sommerfeld theory - Spectra of hydrogen like ions - Fine structure spectra of alkali atom - Photo electric effect - X-ray part1 - X-ray part2 - X-ray part3



كود المقرر: 208 اسم المقرر: علوم الحاسب

Introduction to high level programming Language - Data types - Handling errors - Statements and tools - Dealing with arrays - Functions and subroutines - Dealing with files - Other topics (e.g. Design menu)

كود المقرر: 202 اسم المقرر: لغة انجليزية

Part Two: Vocabulary Skills - Words in context - Roots - Words for size - Idioms, confusing Expressions and word pairs - Part Three: Writing Skills - Structure and cohesion - Description: Process and procedure - Definitions - Exemplification - Classification - Part One: Reading comprehension - Doing Science - Analogy and Memory - Energy

كود المقرر: 301 اسم المقرر: تشريح نبات وفيروسات ومناعة

Ultrastructure of Plant cell wall - The structure of the stem and the impacts of the environment - The stem role in photosynthesis - Regulation of the stem growth on anatomical view - The structure of the leaf and the impacts of the environment - The relevance functional of the leaf - Anatomical structure of the leaf and the types of photosynthesis - Relationship of the leaf structure with the water use efficiency - The structure of the root and the impacts of the environment - Introduction to viruses - Groups of viruses - The morphology of viruses - Cultivation of viruses - separation of viruses - Interactions among species - Microbiology of the rhizosphere - Immunity theories - antigens - antibodies - different reactions

كود المقرر: 302 اسم المقرر: علم الخلية وتلوث البيئة

Introduction to environmental pollution, types of pollutants - Toxic pollutants and their Analysis - Soil, water and air Water pollution - Industrial and Domestic Effluents - Pollution of River Nile, Irrigation and drainage Canals - pollution standards and measurements - Use of Aquatic Plants in wastewater treatment - pollution management - cell membrane and cell wall - vacuole--plastids-mitochondria - endoplasmic reticulum- Golgi apparatus - Cell Nucleus and Nucleic acids

كود المقرر: 303 اسم المقرر: فطريات

Introduction - Historical background - General characteristics - Modern taxonomy of fungi - Amoebozoan fungi - Chromalveolata fungi - Chromalveolata fungi - K. Fungi: Chytridiomycota - K. Fungi: Zygomycota - K. Fungi: Zygomycota - K. Fungi: Basidiomycota 1 - K. Fungi: Basidiomycota 2 - K. Fungi: Ascomycota1 - K. Fungi: Ascomycota 2 and Mitosporic fungi

كود المقرر: 304 اسم المقرر: مجتمعات نباتية اكتيتوميساتات وريكستا

Introduction, structural characteristics of plant community, Qualitative characteristics of plant community composition, periodicity and phenology and analytic and synthetic stratification - Methods of studying plant community, and minimal area and, Transect method, types of transects, bisect method type of quadrats - Synthetic characteristics of plant community Methods of vegetation fidelity, dominance and physiognomy and pattern presence and constancy - Ordination methods similarity coefficients, Euclidean and indirect ordination - Introduction to bacteria, Groups of bacteria - The phototrophic, The gliding - The sheathed bacteria - Budding and/or appendaged bacteria, The Spirochetes, Spiral and curved bacteria, Gram negative aerobic rods and cocci - Gram negative facultatively anaerobic bacteria, Gram negative anaerobic bacteria - Gram negative cocci and coccobacilli, Gram negative anaerobic cocci Gram negative chemolithotrophic bacteria - Methane producing bacteria, Endospore forming rods and cocci - Gram positive cocci - Gram positive asporogenous rod-shaped bacteria - The actinomycetes - The Rickettsias - The Mycoplasmas

كود المقرر: 317 اسم المقرر: كيمياء عضوية فيزيائية كيمياء تحليلية

Neutralization Titrations - Oxidation-Reduction Titrations - Precipitation Titrations - Complexation Titrations - Practical part - Organic topics

كود المقرر: 338 اسم المقرر: مبادئ علم الحاسب

Review the basics of database concepts: relational vs. flat database, database design techniques, relational database structure, and data retrieval - Identify primary keys, foreign



keys, relationships between tables and referential integrity. - Explain creating, deleting and adding relationships - Define creating relations and join in queries - Differentiate between select queries and crosstab queries - Demonstrate creating action queries - Dealing with SQL - Explain macros and events - Apply Visual Basic modules - Explain and demonstrate Internet features of Access

كود المقرر: 305 اسم المقرر: شكل مقارن - تصنيف زهري

Studying the most important systems of classifications - Class: Monocotyledoneae - Class: Dicotyledoneae - Making artificial keys for plant identification - Class: Bryophyta - Class: Pteridophyta - Class: Gymnospermae

كود المقرر: 306 اسم المقرر: فسيولوجي وبيئة الطحالب

Introduction to algal physiology and ecology - Culture of algae in lab - Growth curve in culture - Continuous culture - Growth media - Algal nutrition - Reserve food - Photosynthesis - Respiration - Nitrogen fixation and its ecological importance - Aquatic environment - Benthos and phytoplanktons - Soil algae and its ecological importance - Effect of pesticides on algal growth and distribution

كود المقرر: 307 اسم المقرر: ميكروبيولوجيا التربة

Introduction to soil environment - Soil bacteria - Soil actinomycetes - Soil fungi - Soil algae - soil fauna - Organic matter decomposition - Carbon cycle - Nitrogen cycle - Microbial transformation of phosphorus and sulphur - Microbial transformation of ferrous and other elements - Pesticides and herbicides and soil contamination - Pesticides and herbicides and soil microorganisms - Interactions among species - Microbiology of the rhizosphere

كود المقرر: 308 اسم المقرر: فسيولوجيا النبات

Physical properties of water, soil water potential and its components, the soil water characteristic curve, methods of measuring soil water content and potential. - Soil water movement: saturated flow, Darcy's Law, measurement of hydraulic conductivity, unsaturated flow, infiltration, saturated flow analysis. - Absorption of water - Sap translocation - Transpiration - Guttation, Water balance and Wilting - Water Holding Capacity - Types of soil - Hydrexere and Xeroxere - Evapotranspiration - Factors influencing rates of evaporation and transpiration - energy balance and aerodynamic approaches - alternative ways of estimating evaporation, advection, crop factors.

كود المقرر: 318 اسم المقرر: كيمياء فيزيائية - كيمياء المنتجات الطبيعية

Introduction of electrochemistry - Electromotive force (EMF) - Types of electrochemical cells - Nernst equation - Electrolysis - Faraday's law of electrolysis - Overpotential - Organic part

كود المقرر: 339 اسم المقرر: احتمالات واحصاء

Descriptive statistics: frequency tables - measures of central tendency - measures of dispersion - standards deviations and kurtosis - regression and correlation - introduction to probability theory - the definition of probability - probability axioms - fundamental principles of harmonic analysis - the conditional probability and independence - the law of total probability and Bayes

كود المقرر: 302 اسم المقرر: لغة انجليزية

Vocabulary Skills - Words in context - Roots - Words for size - Idioms, confusing Expressions and word pairs - Writing Skills - Structure and cohesion - Description: Process and procedure - Definitions - Exemplification - Classification - Reading comprehension - Doing Science - Analogy and Memory - Energy

كود المقرر: 401 اسم المقرر: مناخ وجغرافيا نباتية

Introduction to Climatology and Meteorology - Climatic change and its effects - The Moisture factor - Temperature - Wind and its effects - Evaporation and evapotranspiration - The light factor - Climate and vegetation - Green house effect and ozone depletion - Acid rain and its effects - Ecology and plant geography - Dispersal, barriers - Types of plant distribution - Endemism, relic areas, Tolerance theory - Phytogeographic regions of the world, Egypt



كود المقرر: 402ن اسم المقرر: احياء مائية ميكروبية

Introduction to Aquatic Ecosystems- Sourcetypes of water - Classification of algae according to its environment - Kinds of Aquatic Biota in freshwater and marine ecosystem - Important of aquatic biota in environments - Human use of freshwater as drinking water- Bacteria and drinking water samples - Nutrient removal from water - Microbiological analysis of water quality&indicator organisms - Fecal Streptococcus and Enterococcus groups - Iron and Sulfur bacteria - Luminous bacteria - Aquatic Fungi - Aquatic algae - Pathogens biota

كود المقرر: 403ن اسم المقرر: وراثية

وراثية مندل – التفوق - تعدد البدائل-الجينات المميتة-انعدام السيادة-السيادة الناقصة - تركيب المادة الوراثية - تضاعف المادة الوراثية – النسخ – الترجمة - الطفرات و إصلاح المادة الوراثية - تنظيم عمل الجينات - كيف تتحكم الجينات في الأيض  
كود المقرر: 404ن اسم المقرر: امراض نبات

Introduction to plant pathology-The concept of the disease-Classification of the plant diseases - Parasitism and Disease development - Disease Cycle - Plant diseases caused by Fungi - Plant diseases caused by Bacteria - Plant diseases caused by Viruses.-Plant diseases caused by parasitic higher plants - How pathogens attacks their hosts - How hosts defend themselves.- Control of plant diseases - Epidemiology of plant diseases

كود المقرر: 404ن اسم المقرر: فسيولوجيا النبات

Enzymes characteristics and classification - Enzyme kinetics - Photosynthesis, light reactions - Dark reactions in C3 plants - Dark reactions in C4 plants - Dark reactions in CAM plants – Respiration - Respiration-like processes - Lipid metabolism

كود المقرر: 416ك اسم المقرر: منتجات طبيعية واطياف

Introduction to alkaloids - Phenylethyl amine alkaloids - Pyridine alkaloids - Pyridine-pyrrolidine alkaloids - Quinoline and isoquinoline alkaloids - Introduction - Overview of spectroscopic theories and techniques - Infra red spectroscopy - Nuclear magnetic resonance - Mass spectroscopy - Application - Mass spectroscopy - Application - Estimation of glycine - Estimation of aspirin - Estimation of vitamin C - Estimation of formalin - Estimation of alcohols - Estimation of phenols - Estimation of amines - Estimation of aldehydes and ketones - Estimation of esters

كود المقرر: 405ن اسم المقرر: نظام بيئي وفلورا

The nature of Ecosystem, Energy flow - Biomes , world ecosystem types - Material cycling - Human impacts on ecosystem - Ecosystem response to global environmentalchange - Introduction to Egyptian Flora - Characteristics of the Egyptian Flora - Flora of the Mediterranean Region - Flora of the Desert Region - Flora of the Red Sea Region - Flora of the Nile Region - Flora of the Sinai - Flora of the Jebel Elba Region - Flora of the Oases - Uses and value of the Egyptian Flora - Human Impacts on the flora - Methods of Egyptian flora Conservation

كود المقرر: 406ن اسم المقرر: فسيولوجيا الكائنات

Chemistry of microbial cell - Molecular Architecture - Growth - Chemical requirements for growth - Nutrient Acquisition - The Physical Environment and growth - Enzymes characteristics and classification - Primary metabolism - Secondary metabolism - Inhibitors and antibiotics

كود المقرر: 407ن اسم المقرر: علاقة العائل بالطفيل - فسيولوجي متقدم

Fungal-plant interaction - Role of Toxin in disease development - Host-plant colonization and genetics of mechanisms of diseases resistance - Constitutive host defenses and biochemical resistance - Systemic acquired resistance – Auxins – Gibberellins – Cytokinins - Abscisic acid – Ethylene – Phytochrome – Vernalization - Dormancy

كود المقرر: 408ن اسم المقرر: فسيولوجيا الخلية - هنسة وراثية

Synthesis, differentiation and function of cellwall and plasma membranes - Synthesis, differentiation and function ofmitochondria, chloroplasts, peroxisomes and spherosomes - Synthesis, differentiation and function ofglyoxysomes, ribosomes and nucleus - DNA ( gene) structure and function - Mechanism of DNA replication - RNA polymerase structure and





function - Transcription in prokaryotes and Eukaryotes - Regulation of Lac operon and Trp operon - Temporal regulation - Structure of rRNA, tRNA and Mechanism of Translation- DNA manipulation - Techniques used in genetic engineering - Gene cloning and its applications

كود المقرر: 401 ح اسم المقرر: كيمياء حيوية

Function, Classification & Nomenclature of Carbohydrates - Physical properties of Monosaccharides - Chemical properties of Monosaccharides - Cyclic structure of sugars (Pyran & furan rings) - Disaccharides (Sucrose, Lactose, maltose) and their enzymatic Hydrolysis - Oligosaccharides & Cellobiose - Classification of Polysaccharides (homoglycans e.g. starch, Glycogen & cellulose) - Heteroglycans (glucosaminoglycans, Glycoproteins & Glycolipids) - Glycolysis & Citric acid cycle - Gluconeogenesis - Glycogen metabolism - Pentose Phosphate Pathway - Monosaccharide & Disaccharides metabolism - Glycosaaminoglycans & glycoproteins metabolism - Regulation & disorders of carbohydrates metabolism

كود المقرر: بدون اسم المقرر: بحث او مقال

Introduction to an essay- Choosing the subject of the essay - Main topics of the essay - Collecting materials - Revisions of the collected materials - Collection of references in the essay - Writing the essay

كود المقرر: 402 ل أسم المقرر: لغة انجليزية

Reading - Skimming - Scanning - Finding the pattern of organization - Earthquakes - Pollution - The effects of oil on submarines - Force and pressure - Modals - Adjective clauses - Adverb clauses - Noun clauses - Conjunctions and prepositions - Linking ideas - Structure and cohesion - Learner- centered approach - Communicative approach - Lecturing - Discussion on groups

كود المقرر: بدون اسم المقرر: حاسب

WORLD WIDE WEB (WWW) - History, Working, Web Browsers and their versions, Its functions, URLs, web sites, Domain names, Portals. Concept of Search Engines, Search engines types, searching the Web and Web Servers, client and server techniques - Internet basics: Internet Protocols - Internet Services - USENET, GOPHER, WAIS, ARCHIE and VERONICA, IRCWORLD WIDE WEB - HTML Basics: - Introduction to HTML elements, Basic tags, Attributes, creating HTML page, formatting, HTML links, List types and its tags. Creating HTML tables, adding pictures. HTML and page accessibility, colors & background - Advance HTML: - Use of Frames and Forms in web pages, formatting web pages by using GIF, JPEG getting web and clip arts. Use of interlinks - Introduction to Dreamweaver - More Features of Dreamweaver - Different applications to build homepages using HTML and Dreamweaver