



جامعة النجم الساطع – البريقة

القسم العام لـكلية الهندسة التقنية والعلوم الهندسية وعلوم الطيران

كلمة من رئيس القسم

في البداية أتوجه بالشكر إلى إدارة الجامعة وذلك لدعمها المتواصل للقسم وتحفيزه وتوجيهه على بذل المزيد من التميز والعطاء كما أتوجه بالشكر الخاص لزملائي في القسم لما بذلوه خلال هذه الفترة من العمل المتواصل والدؤوب دون كلال أو ملل وفي الحتام تأمل أن نكون قد وفقنا للمهام الموكلة إلينا سائلين الله عز وجل السداد والتوفيق.

الهيكـل التنظيمي للقسم العام
جامعة النجم الساطع

رئيس القسم العام
مجلس القسم

مـنـسـق الجـودـة
وتقييم الاداء

مـنـسـق اعضاء هيئة
التدريس

مكتب الشؤون
الادارية

مـنـسـق المعامل
بالقسم

امين السر

الدراسة
والامتحانات

مـنـسـق كلية
علوم الطيران

مـنـسـق كلية
العلوم الهندسية

مـنـسـق كلية
الهندسة التقنية

مرؤية القسم العام

أفضل قسم علمي عام في التعليم الجامعي والبحث العلمي وخدمة المجتمع في المجالات العلمية التطبيقية

بجول عام 2030 م .

مرسالة القسم العام

تزويد الأقسام العلمية بكليات الهندسة التقنية والعلوم الهندسية وعلوم الطيران بطلاب على كفاءة

عالية وفقاً لمعايير الجودة المحلية والعالمية.

الأهداف التشغيلية للقسم العام لسنة 2022م

الهدف الأول: انشاء قاعدة بيانات.

الهدف الثاني: اعداد دليل القسم العام.

الهدف الثالث: توثيق إجراءات الاعمال بالقسم العام.

الهدف الرابع: انشاء نظام للإرشاد الأكاديمي.

الهدف الخامس: توصيف جميع المقررات الدراسية.

الهدف السادس: توصيف البرنامج الأكاديمي.

الهدف السابع: وضع الية لقياس رضاء أعضاء هيئة التدريس والكوادر المساعدة.

الهدف الثامن: وضع الية لقياس رضاء الطلاب عن الارشاد الأكاديمي.

الهدف التاسع: وضع الية لقياس رضاء الطلاب عن أعضاء هيئة التدريس.

الهدف العاشر: تحديد احتياجات المعامل من معدات وأجهزة.

الهدف الحادي عشر: تحديد الاحتياجات التدريبية بالقسم العام.

الهدف الثاني عشر: وضع الية لاختيار قسم عام مرجعية علمية للقسم العام بالجامعة.

الهدف الثالث عشر: وضع الية لضمان تنوع أساليب وطرق التدريس بالقسم العام.

الهدف الرابع عشر: وضع الية لقياس رضاء الأقسام العلمية عن مخرجات القسم العام.

الهدف الخامس عشر: تحديد احتياجات القاعات الدراسية للوسائل التعليمية الحديثة.

الهدف السادس عشر: وضع علامات ارشادية لمباني وقاعات القسم العام.

الهدف السابع عشر: تحديد احتياجات القسم العام لقاعات جديدة.

المخطة الدراسية (محتوى المبرج الدراسي لكل مادة)

General Basic Sciences Department



Bright Star University, El -Brega
Faculty of Technical
Engineering
&
Aviation Science
Description of Course Content



1.FIRST SEMESTER

Course no.	GS111	
Course Title.	General Chemistry I	
Credit.	4 Credit	Hours per week. (3 Lec + 0 Tut + 2 lab)
Prerequisite.	<u>Nil</u>	
Course Description.	The course covers the study of the atomic structure, periodic table, gaseous state, thermo chemistry, introduction to the different classes of organic compounds with special emphasis on functional groups, nomenclature, isomerism and the fundamental concepts about structure and reactivity.	

Course no.	GS112	
Course Title.	General Physics I	
Credit.	4 Credit	Hours per week. (3 Lec + 0 Tut + 2 lab)
Prerequisite.	<u>Nil</u>	
Course Description.	Mechanics: linear and circular motion, Newton's Laws of motion, work, energy, conservation laws. Properties of matter: elasticity, surface tension, fluid mechanics. Heat and thermodynamics: heat, laws of thermodynamics, ideal gas. Vibration and waves: simple harmonic motion, vibrations, travelling and standing waves, properties and propagation of sound.	

Course no.	GS113	
Course Title.	Mathematics I	
Credit.	3 Credit	Hours per week.(3 Lec + 0 Tut + 0lab)
Prerequisite.	<u>Nil</u>	
Course Description.	Sets .Real and complex number systems .Functions and their graphs .Vectors in the plane and space .Determinants, solutions of a system of linear equations .Limits and continuity of functions. Derivatives, derivatives of elementary functions, Roll's and Mean Value theorems, maxima, minima and graph sketching, applications of l'Hopital rule.	

Course no.	GE114	
Course Title.	Principle of Computer I	
Credit.	2 Credit	Hours per week. (2 Lec + 0Tut + 0lab)
Prerequisite.	<u>Nil</u>	
Course Description.	<p>Understand the history of how computer technology unfolded, with particular emphasis on the “generations”. Understand how people and events affected the development of computers. Identify the basic components of computer system: input, processing, output and storage. Understand the difference between the difference types of software. Identify the components of the central processing unit and how they work together to form a system and interact with memory. Appreciate the need for the different applications included in the accessories of an Operating System. Know how the commands work in both GUI (Graphical User Interface) and CUI (Character User Interface) environment.</p>	

Course no.	GH115	
Course Title.	English I	
Credit.	3 Credit	Hours per week. (3 Lec + 0Tut + 0lab)
Prerequisite.	<u>Nil</u>	
Course Description.	<p>This course is designed for first-year students of Engineering during the first semester of their academic year. It consists of two parts: (a) a short refresher course in ordinary English to help bridge the gap between school and university standards; aural/oral approaches and techniques are used; and, (b) a lengthy intensive course in scientific English to enable the students to understand their lectures and textbooks on engineering topics.</p>	

Course no.	GH116	
Course Title.	General Culture	
Credit.	2 Credit	Hours per week. (2 Lec + 0Tut + 0lab)
Prerequisite.	<u>Nil</u>	
Course Description.	<p>This course explains the concept of political culture and its definition in any society and ways of transmission , the concept of the state and its elements and ways of origin ,types of states and the concept of government and its elements and the theory of the emergence of government and governance the concept of constitutions, their content ,types, mechanism of issuing them the concept of public opinion, its types, composition , and methods of measurement . the concept of parties, their types , their advantages and disadvantages , the concept of interest groups , pressure , types, means and mechanisms of evaluation , civil society , the concept of human rights and its development , the universal declaration of human rights , the concept of globalization ,its advantages and dangerous and the concept of administration.</p>	

Course no.	GE117	
Course Title.	Engineering Drawing I	
Credit.	3 Credit	Hours per week. (3 Lec + 2 Tut + 0lab)
Prerequisite.	<u>Nil</u>	
Course Description.	<p>The need for a graphic language. Use and care of drawing instruments and equipment. Freehand sketching. Orthographic projections sectioning and dimensioning of single machine elements. Isometric drawing and dimensioning. Space analysis of points and lines with applications.</p>	

2. SECOND SEMESTER

Course no.	GS121	
Course Title.	General Chemistry II	
Credit.	4 Credit	Hours per week. (3 Lec + 0Tut + 2 lab)
Prerequisite.	GS111	
Course Description.	The course covers the study of the artificial radio-activity, chemical bond, theories of the covalent bond. classification of compounds, the chemical behavior of some common substances thermodynamics, electrochemistry, solid state chemistry and the organic reaction of alkenes, cycloalkanes, alkenes, al-kynes. alkyl halides, alcohols, aldehydes and ketones, with detailed study of reaction mechanisms	

Course no.	GS122	
Course Title.	General Physics II	
Credit.	4 Credit	Hours per week. (3 Lec + 0Tut + 2 lab)
Prerequisite.	GS112	
Course Description.	Electricity and magnetism: charge, Coulomb's Law, electric field, Gauss's Law, and its applications, electric potential, capacitors and dielectrics, current and resistance, EMF and circuits, magnetic field, magnetic Induction hall effect, Ampere's Law, inductors acid solenoids, self-induction, R-L and R-C circuits, magnetic properties of matter, Electromagnetic oscillators, E.M.W. and Maxwell's equations, transmission lines, traveling waves. Alternating currents and voltag	

Course no.	GS123	
Course Title.	Mathematics II	
Credit.	3 Credit	Hours per week. (3 Lec + 0Tut + 0lab)
Prerequisite.	GS113	
Course Description.	Definite integral, fundamental theorem of calculus. Exponential and logarithmic functions, hyperbolic functions. Techniques of integrations. Geometrical and physical applications of the definite integral. Functions of several variables, partial	

	derivative. Maxima and minima and Lagrange's multipliers. Line integrals. Double integrals in rectangular and polar coordinates. Series, power series, Taylor's theorem.
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Course no.	GE124	
Course Title.	Computer Application II	
Credit.	3 Credit	Hours per week. (3 Lec + 0Tut + 0lab)
Prerequisite.	GE114	
Course Description.	The objectives of this course are to provide an introduction to basic programming techniques including the following: Problem solving skills. Understand flowcharting tools. Use the proper tool for proper operation. Learn the necessary properties of algorithms: input, output, definiteness, correctness, finiteness, effectiveness, and generality. Understand how to analyze the given problem scientifically and not by intuition. Understand how to write an algorithm to solve a given problem. Convert the algorithm into flowchart and ultimately to a given programming language.	

Course no.	GH125	
Course Title.	English II	
Credit.	3 Credit	Hours per week. (3 Lec + 0Tut + 0lab)
Prerequisite.	GH115	
Course Description.	This course is designed for first-year students of Engineering during the first semester of their academic year. It consists of two parts: (a) a short refresher course in ordinary English to help bridge the gap between school and university standards; aural/oral approaches and techniques are used; and, (b) a lengthy intensive course in scientific English to enable the students to understand their lectures and textbooks on engineering topics.	

Course no.	GH126	
Course Title.	Arabic Language	
Credit.	2 Credit	Hours per week. (2 Lec + 0Tut + 0lab)
Prerequisite.	<u>Nil</u>	
Course Description.	Grammar : Verbal sentence , nominal sentence and bombers . Literature and poetry : studying several examples from Quran and pomes from different areas . Writing and dictation .	

Course no.	GE127	
Course Title.	Engineering Drawing II	
Credit.	3 Credit	Hours per week. (2 Lec + 0Tut + 2 lab)
Prerequisite.	GE117	
Course Description.	Thread dimensioning, standard M/C elements assembly, inking, space analysis, views of a point, lines, true length of line and oblique lines, bearing slope and grade, Steel structure drawing.	

General Basic Sciences Department



Bright Star University, El -Brega

Faculty of Engineering

Science

Description of Course Content



1.FIRST SEMESTER

Course no.	GS111	
Course Title.	General Chemistry I	
Credit.	4 Credit	Hours per week. (3 Lec + 0 Tut + 2 lab)
Prerequisite.	<u>Nil</u>	
Course Description.	The course covers the study of the atomic structure, periodic table, gaseous state, thermo chemistry, introduction to the different classes of organic compounds with special emphasis on functional groups, nomenclature, isomerism and the fundamental concepts about structure and reactivity.	

Course no.	GS112	
Course Title.	General Physics I	
Credit.	4 Credit	Hours per week. (3 Lec + 0 Tut + 2 lab)
Prerequisite.	<u>Nil</u>	
Course Description.	Mechanics: linear and circular motion, Newton's Laws of motion, work, energy, conservation laws. Properties of matter: elasticity, surface tension, fluid mechanics. Heat and thermodynamics: heat, laws of thermodynamics, ideal gas. Vibration and waves: simple harmonic motion, vibrations, travelling and standing waves, properties and propagation of sound.	

Course no.	GS113	
Course Title.	Mathematics I	
Credit.	3 Credit	Hours per week.(3 Lec + 0 Tut + 0lab)
Prerequisite.	<u>Nil</u>	
Course Description.	Sets .Real and complex number systems .Functions and their graphs .Vectors in the plane and space .Determinants, solutions of a system of linear equations .Limits and continuity of functions. Derivatives, derivatives of elementary functions, Roll's and Mean Value theorems, maxima, minima and graph sketching, applications of l'Hopital rule.	

Course no.	GE114	
Course Title.	Principle of Computer I	
Credit.	2 Credit	Hours per week. (2 Lec + 0Tut + 0lab)
Prerequisite.	<u>Nil</u>	
Course Description.	<p>Understand the history of how computer technology unfolded, with particular emphasis on the “generations”. Understand how people and events affected the development of computers. Identify the basic components of computer system: input, processing, output and storage. Understand the difference between the difference types of software. Identify the components of the central processing unit and how they work together to form a system and interact with memory. Appreciate the need for the different applications included in the accessories of an Operating System. Know how the commands work in both GUI (Graphical User Interface) and CUI (Character User Interface) environment.</p>	

Course no.	GH115	
Course Title.	English I	
Credit.	3 Credit	Hours per week. (3 Lec + 0Tut + 0lab)
Prerequisite.	<u>Nil</u>	
Course Description.	<p>This course is designed for first-year students of Engineering during the first semester of their academic year. It consists of two parts: (a) a short refresher course in ordinary English to help bridge the gap between school and university standards; aural/oral approaches and techniques are used; and, (b) a lengthy intensive course in scientific English to enable the students to understand their lectures and textbooks on engineering topics.</p>	

Course no.	GH116	
Course Title.	General Culture	
Credit.	2 Credit	Hours per week. (2 Lec + 0Tut + 0lab)
Prerequisite.	<u>Nil</u>	
Course Description.	<p>This course explains the concept of political culture and its definition in any society and ways of transmission , the concept of the state and its elements and ways of origin ,types of states and the concept of government and its elements and the theory of the emergence of government and governance the concept of constitutions, their content ,types, mechanism of issuing them the concept of public opinion, its types, composition , and methods of measurement . the concept of parties, their types , their advantages and disadvantages , the concept of interest groups , pressure , types, means and mechanisms of evaluation , civil society , the concept of human rights and its development , the universal declaration of human rights , the concept of globalization ,its advantages and dangerous and the concept of administration.</p>	

Course no.	GE117	
Course Title.	Engineering Drawing I	
Credit.	3 Credit	Hours per week. (3 Lec + 2 Tut + 0lab)
Prerequisite.	<u>Nil</u>	
Course Description.	<p>The need for a graphic language. Use and care of drawing instruments and equipment. Freehand sketching. Orthographic projections sectioning and dimensioning of single machine elements. Isometric drawing and dimensioning. Space analysis of points and lines with applications.</p>	

2. SECOND SEMESTER

Course no.	GS121	
Course Title.	General Chemistry II	
Credit.	4 Credit	Hours per week. (3 Lec + 0Tut + 2 lab)
Prerequisite.	GS111	
Course Description.	The course covers the study of the artificial radio-activity, chemical bond, theories of the covalent bond. classification of compounds, the chemical behavior of some common substances thermodynamics, electrochemistry, solid state chemistry and the organic reaction of alkenes, cycloalkanes, alkenes, al-kynes. alkyl halides, alcohols, aldehydes and ketones, with detailed study of reaction mechanisms	

Course no.	GS122	
Course Title.	General Physics II	
Credit.	4 Credit	Hours per week. (3 Lec + 0Tut + 2 lab)
Prerequisite.	GS112	
Course Description.	Electricity and magnetism: charge, Coulomb's Law, electric field, Gauss's Law, and its applications, electric potential, capacitors and dielectrics, current and resistance, EMF and circuits, magnetic field, magnetic Induction hall effect, Ampere's Law, inductors acid solenoids, self-induction, R-L and R-C circuits, magnetic properties of matter, Electromagnetic oscillators, E.M.W. and Maxwell's equations, transmission lines, traveling waves. Alternating currents and voltag	

Course no.	GS123	
Course Title.	Mathematics II	
Credit.	3 Credit	Hours per week. (3 Lec + 0Tut + 0lab)
Prerequisite.	GS113	
Course Description.	Definite integral, fundamental theorem of calculus. Exponential and logarithmic functions, hyperbolic functions. Techniques of	

	<p>integrations. Geometrical and physical applications of the definite integral. Functions of several variables, partial derivative. Maxima and minima and Lagrange's multipliers. Line integrals. Double integrals in rectangular and polar coordinates. Series, power series, Taylor's theorem.</p>
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Course no.	GE124	
Course Title.	Computer Application II	
Credit.	3 Credit	Hours per week. (3 Lec + 0Tut + 0lab)
Prerequisite.	GE114	
Course Description.	<p>The objectives of this course are to provide an introduction to basic programming techniques including the following: Problem solving skills. Understand flowcharting tools. Use the proper tool for proper operation. Learn the necessary properties of algorithms: input, output, definiteness, correctness, finiteness, effectiveness, and generality. Understand how to analyze the given problem scientifically and not by intuition. Understand how to write an algorithm to solve a given problem. Convert the algorithm into flowchart and ultimately to a given programming language.</p>	

Course no.	GH125	
Course Title.	English II	
Credit.	3 Credit	Hours per week. (3 Lec + 0Tut + 0lab)
Prerequisite.	GH115	
Course Description.	<p>This course is designed for first-year students of Engineering during the first semester of their academic year. It consists of two parts: (a) a short refresher course in ordinary English to help bridge the gap between school and university standards; aural/oral approaches and techniques are used; and, (b) a lengthy intensive course in scientific English to enable the students to understand their lectures and textbooks on engineering topics.</p>	

Course no.	GH126	
Course Title.	Arabic Language	
Credit.	2 Credit	Hours per week. (2 Lec + 0Tut + 0lab)
Prerequisite.	Nil	
Course Description.	Grammar : Verbal sentence , nominal sentence and bombers . Literature and poetry : studying several examples from Quran and pomes from different areas . Writing and dictation .	

Course no.	GS127	
Course Title.	Principle of Statics & Probability	
Credit.	2 Credit	Hours per week. (2 Lec + 0Tut + 0 lab)
Prerequisite.	GE117	
Course Description.	تعريف وأهمية ومجال وحدود الإحصاء, مصادر جمع البيانات, تصنيف وعرض البيانات, التوزيعات التكرارية, مقاييس النزعة المركزية, مقاييس التشتت والالتواء, العزم, مفهوم التوافق وارتباط الصفات, الارتباط البسيط والرتبي والمتعدد, الانحدار البسيط والمتعدد (لحد ثلاثة متغيرات) التقدير باستخدام طريقة المربعات الصغرى, التوزيعات الاحادية المنفصلة (برنولي, ذي الحدين, بواسون, الهندسي, فوق الهندسي, ذي الحدين السالب, متعدد الحدود) قانون الأعداد الكبيرة, نظرية النهاية المركزية, التوزيع الطبيعي, التوزيعات الهامشية والتوزيعات الشرطية, التوقع والتباين المشروطين.	

General Basic Sciences Department



Bright Star University, El -Brega
Faculty of Technical
Engineering &
Faculty of Aviation Science.
Description of Course Content



3. THIRD SEMESTER

Course no.	GH 231	
Course Title.	English Language III	
Credit.	3Credit	Hours per week.(2Lec+1Tut+0lab)
Prerequisite.	GH125	
Course Description.	Study lessons, Scientific formations Greek and Latin declensions, Formation of Nouns, Formation of adjectives and opposite, Prepositions: Place and time, Articles, Study of Irregular verbs , Study of the meaning of some terms (Terminology) used in Chemical Engineering, Training on translation from English to Arabic and vice versa, Study some actions and results.	

Course no.	GS 232	
Course Title.	Mathematics III	
Credit.	3Credit	Hours per week.(2Lec+1Tut+0lab)
Prerequisite.	GS123	
Course Description.	<p>Matrices/ basic definition in matrices- some types of matrices –collect and hit matrices –hit the matrix in the number –modified matrices –conversions initial –matrices initial –the matrices not compliment –finding an inverted matrix is unremarkable.</p> <p>Matrix selector ;define the delimiter using the concept of permutation- characteristics of determinants'- the use of delimiters in finding an inverted matrix is commendable-equivalence in matrices – the reduced descriptive form of the matrix- grade matrix and calculate .</p> <p>-linear equation system –find aset of linear equations solutions-study the necessary and sufficient conditions for the system of linear equations to be compatible .</p> <p>General solution of homogeneous linear equations complex number Laplace transformation solving equation by Laplace</p>	

Course no.	GE 233	
Course Title.	Workshops Technolgy	
Credit.	3Credit	Hours per week.(2Lec+0Tut+2lab)
Prerequisite.	Nil	
Course Description.	<p>General safety , materials and their classifications, measuring devices and their accuracy, fits and tolerances, theoretical background for the practical exercises including fitting, forging, carpentry, casting, welding, mechanical saws, shearers, drills, lathes, milling machines, shapers and granders.</p> <p>Basic electrical and mechanical measurements.</p> <p>Practical :</p> <p>Pattern Making; pattern material, patten allowances and types of patterns;</p> <p>Mould making Practice: Uses of moulding tools: green sand moulding, gating system, risering system, core making;</p> <p>Making a typical product using sheet metal;</p> <p>Basic Forging processes like upsetting, drawing down and forge welding;</p> <p>Practicing Resistance Spot Welding, Shielded Metal Arc Welding and Gas Welding ;</p> <p>Machining of typical products involving lathe, milling/shaping operations and finishing process; Machining of gears.</p> <p>Using of basic measurement tools.</p> <p>Measurement of electrical quantities: voltage , current, resistance.</p> <p>Students to be trained on how to deal with machines and tools according to the safety instructions.</p>	

Course no.	GE 234	
Course Title.	Thermodynamics	
Credit.	3Credit	Hours per week.(2Lec+1Tut+0lab)
Prerequisite.	GS112	
Course Description.	<p>Units and some definitions. Thermodynamic properties , temperature, work heat energy . state of pure substances. State equation of ideal Gases. The PVT behavior of pure substances. First law of thermodynamics. Energy equation. Specific heats internal energy. Enthalpy. Control volume</p>	

	and systems. Steady state, uniform state processes Second law of thermodynamics. Reversibility Entropy. Inequality of clauses. Entropy changes. Thermodynamic relations Maxwell relations, relations involving: enthalpy internal energy and entropy. Thermodynamic tables. Non ideals behavior in systems of variable composition. Partial molal properties. Fugacity and fugacity coefficient. Activity and activity coefficient. Excess properties, Heat effect on mixing, The phase rule and Duhem's theorem Criteria of equilibrium Vapor-liquid equilibrium at low and high pressures Dew point, bubble point and flash calculations. Chemical relation equilibrium. Equilibrium constants and dependence on temperature, Single and multiple reactions equilibrium conversions. Thermodynamic cycle cannot. Ranking Reheat. Otto Diesel Dual Brayton and vapor compression refrigeration cycles.
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Course no.	GE 235	
Course Title.	Fundamentals of electrical circuits	
Credit.	3Credit	Hours per week.(2 Lec+0Tut+2lab)
Prerequisite.	GS123,GS122	
Course Description.	<p>1-Introduction to international system of unit and electrical quantities .Ohm's law – kirchoffs laws – DC and AC Circuits – Resistors in series and parallel circuits. Mesh current and node voltage method of analysis for D.C circuits. Power, power factor and energy</p> <p>2- Network reduction and network theorems for DC and AC circuits: Network reduction: voltage and current division, source transformation, star delta conversion (Star and Delta transformations and vice-versa conversation of voltage source to a current source and vice versa). Thevenins and norton'stheore- superposition theorem – maximum power transfer theorem.</p> <p>3- Energy storge elements: Capacitors and inductors .Series and parallel- their frequency response.</p> <p>4- Transient response for DC circuits: Transient response of RL,RC and RLC circuits for DC in first and second order circuits.</p>	

Course no.	GE 236	
Course Title.	Applied Mechanics	
Credit.	3Credit	Hours per week.(2Lec+1Tut+0lab)
Prerequisite.	GS113,GS112	
Course Description.	<p>Concurrent forces on a plane: Composition, resolution and equilibrium of concurrent coplanar forces, method of moment, friction. Parallel forces on a plane: General case of parallel forces, center of parallel forces and center of gravity, centroid of composite plane figure and curves. General case of forces on a plane: Composition and equilibrium of forces in a plane, plane trusses, method of joints and method of sections, plane frame, principle of virtual work, equilibrium of ideal systems. Moments of inertia: Plane figure with respect to an axis in its plane and perpendicular to the plane, parallel axis theorem.</p> <p>Rectilinear translation: Kinematics, principle of dynamics, D'Alembert's Principle, momentum and impulse, work and energy, impact. Curvilinear translation: Kinematics, equation of motion, projectile, D'Alembert's principle of curvilinear motion. Kinematics of rotation of rigid body.</p>	

4.FOURTH SEMESTER

Course no.	GH 241	
Course Title.	Research Methodology & T.R.W	
Credit.	3Credit	Hours per week.(2 Lec+1Tut+0lab)
Prerequisite.	GH231	
Course Description.	<p>Introduction to the concept of scientific research Characteristics of scientific research Steps of scientific research. Scientific measurement. Types of measurements (Direct, indirect). Types and methods of selection Data collection methods A scientific research plan (consisting of four chapters).</p> <p>Chapter I (General Framework of Research) Chapter II (Previous Studies and theoretical Framework) Chapter 3 (Method of data collection, analysis and approach used) Chapter Four (Conclusions and Recommendations) Need it.</p>	

Course no.	GS 242	
Course Title.	Statistics	
Credit.	2Credit	Hours per week.(2Lec+0Tut+0lab)
Prerequisite.	Nil	
Course Description.	<p>Understand basic concepts and definition of probability , random variables and probability distribution , know the binomial (Bernoulli) distribution , Normal and Poisson distribution , Exploring and summarizing data , Relationships among two continuous variables</p>	

Course no.	GE 243	
Course Title.	Instrumentation & Control	
Credit.	3Credit	Hours per week.(2Lec+0Tut+2lab)
Prerequisite.	GE235,GS112	
Course Description.	<p>Measuring process variables. Pressure, Level, Fluid flow, Temperature, Humidity, Dew point and moisture.</p> <p>Dynamic control systems and planning: Introduction to transport systems act first and second class, systems</p>	

	<p>respectively progress method of analysis to find time constants, response systems first- and second-degree when input signal in the form of step prompt pocket, AC response, stability systems of equations iPod and conditions. And applications in the form of the iPod .</p> <p>Control loops and devices: Basic control loops, types of organizations, did regulator, control valve and actuator.</p>
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Course no.	GE 244	
Course Title.	Materials Engineering	
Credit.	3Credit	Hours per week.(2Lec+1Tut+?lab)
Prerequisite.	Nil	
Course Description.	<p>Types of materials engineering – components metal – crystals body – mechanical properties of the materials – mechanical tensile test – shear stress – crawl shock – fatigue – tests – cruelty – internal structure of contagious – non Altahtimih testing – a radiation test – test magnetic field – the mineral mixtures – a kind heating and cooling scheme for balancing schemes alloys of different mixtures transformation schemes Alaizumtria production of iron and iron compounds furnaces used in the production of iron and carbon scheme heat treatments of steel Returns warm realignment of steel Alkhlauty – types – uses in steels Alkhlauty in flounce of alloy elements on steel – non-ferrous materials and white and colored material.</p>	

Course no.	GE 245	
Course Title.	Fluid Mechanics	
Credit.	3Credit	Hours per week.(2Lec+?Tut+2lab)
Prerequisite.	GE234,GE236	
Course Description.	<p>Fluid Properties – Fluid Statics : Pressure at a point, Pressure Variation in a Static Fluid , Units and Scales of Pressure Measurement , Manometers, Forces on Submerged Surfaces , Buoyant Force , Masses of Liquids Subjected to an Acceleration –Fluid Flow Concepts and basic equation: Flow characteristics , continuity equation Momentum equation, Euler s equation of motion a long a streamline, bernoulli's equation, Steady-state Energy equation, Energy losses – Dimensional Analysis: Dimensional Homogeneity and Dimensionless ratios, The theorem – compressible flow : Speed of a sound wave,</p>	

	mach number, isentropic flow, converging-diverging nozzle flow- velocity and flow rate measurements.
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Course no.	GE 246	
Course Title.	Numerical analysis	
Credit.	3Credit	Hours per week.(2Lec+?Tut+2lab)
Prerequisite.	GS232,GS124	
Course Description.	<p>1-Trigonometric series</p> <p>Functions vehicle, polynomials and chains trigonometric, series forbah of functions with round, series forbah to function move the field length, convergence series forbah, functions marital and functions of individual, chains pockets fullness and chains pockets, composite formula for series forbah, functions Aerorth role.</p> <p>2- Integration Forbah:</p> <p>Representation function integration forbah, integration function forbah that marital and individual functions, the vehicle for the integration formula forbah, convert forbah.</p> <p>3- Laplace transform:</p> <p>Laplace transform, properties of laplace transform, pictures of some functions, the inverse laplace transform, laplace transform applications.</p> <p>4- Functions:</p> <p>Setting vehicle and operations on them, functions for vehicle eventually Alastarar and derived, analytic functions, functions harmonic, study related to some functions, meaning geometric derivative, application Almtnaql, applications to transfer half the level to half the level, transfer half to level inside a circle – move inside a circle inside a circle.</p>	

5.FIFTH SEMESTER

Course no.	GS351	
Course Title.	Occupational Safety	
Credit.	2Credit	Hours per week.(2 Lec+0Tut+0lab)
Prerequisite.	<u>Nil</u>	
Course Description.	Occupational safety and health concept Safety objectives Results of work with occupational safety and health system Risk Definition Risk Types of Risks Physical Hazards Mechanical Risks Chemical Hazards Engineering Risks Biological Hazards Fire Causes Explosives Definition of Ignition Theory Trigonometric Elements Classification of Fire Responsible for Accidents or Hazards in the Work Environment Responsibility for Management in Occupational Safety Workers' Responsibility for Risk Control Emergency Plans Definition of Emergency Plans Types Emergency plans Objectives and principles of contingency planning Elements of the contingency plan Personal protective equipment Personal protective equipment Personal protective equipment Types of management and workers Personal protection.	

6.SIXTH SEMESTER

Course no.	GE 361	
Course Title.	Principles of Engineering Economy	
Credit.	2Credit	Hours per week.(2 Lec+0Tut+0lab)
Prerequisite.	GS242	
Course Description.	Introduction - Interest: Simple Interest, Compound Interest, Continuous Interest - Present Day Value and Discount Annuities - Depreciation: Type of Depreciation, Methods for Calculating Depreciation, Straight Line Method, Declining Balance Method, Sum of the Year Digits Method - Capital Investment - Estimation of the Total Production Cost - Petroleum Engineering Economics.	

الجدول الدراسي



إحصائية مواد القسم العام والمواد المشتركة مع
الأقسام العلمية لكليات (الهندسة التقنية - العلوم الهندسية - علوم الطيران)
للفصل الدراسي (ربيع 2022)

الفصل الدراسي الأول

المجموعات	أسم عضو هيئة التدريس	المقرر الدراسي	رت
(6)	محمد سليمان	فيزياء GS112	1
(2) & (1)	محمد حويل		
(5) & (4) & (3)	أحمد نصر		
(6) & (5) & (3)	عبدالله القباني	كيمياء GS111	2
(4) & (2) & (1)	عبدالباسط		
(5)&(3)&(2)&(1)	علي خليل	رياضة GS113	3
(6) & (4)	سالم النهوم		
(6)&(5)&(4)&(3)&(2)&(1)	فاطمة العرفي	لغة إنجليزية GH115	4
(6)&(5)&(4)&(3)&(2)&(1)	محمد الزناتي	ثقافة عامة GH116	5
(6)&(1)	منتصر بالله علي	رسم هندسي GE117	6
(5)&(4)&(3)&(2)	صالح الطرشاني		
(6)&(5)&(4)&(3)&(2)&(1)	رافع زوبي	مبادئ الحاسب الآلي GE114	7

ملاحظه :- (6) مجموعات لكل مقرر دراسي.

اعتماد رئيس القسم العام

محمد سليمان بشير



إحصائية مواد القسم العام والمواد المشتركة مع
الأقسام العلمية لكليات (الهندسة التقنية - العلوم الهندسية - علوم الطيران)
للفصل الدراسي (ربيع 2022)

الفصل الدراسي الثاني

المجموعات	أسماء أعضاء هيئة التدريس	المقرر الدراسي	رتب
(3)&(2)&(1)	مقبولة بوسيف	فيزياء II GS122	1
(2) & (1)	أنس المغربي	كيمياء II GS121	2
(2) & (1)	سالم النيهوم	رياضة II GS123	3
(1)	سالم الزليتي	أساسيات الاحصاء والاحتمالات GS127	4
(2) & (1)	هشام هابيل	لغة إنجليزية II GH125	5
(2) & (1)	فانز أبو عمره	لغة عربية GH126	6
(2) & (1)	نذير خلف الله	رسم هندسي II GE127	7
(2) & (1)	خالد آدم	تطبيقات حاسوب GE124	8

اعتماد رئيس القسم العام

محمد سليمان بشير



إحصائية مواد القسم العام والمواد المشتركة مع
الأقسام العلمية لكليات (الهندسة التقنية - العلوم الهندسية - علوم الطيران)
للفصل الدراسي (ربيع 2022)

المواد المشتركة

المجموعات	أسم عضو هيئة التدريس	المقرر الدراسي	رت
(2) & (1)	أ. عبد الحميد الغفاني	ميكانيكا هوائيات GE245	1
(1)		هندسة مواد GE244	2
(2) & (1)	أ. ثابت الربيعي	تقنية ورش GE233	3
(2) & (1)	أ. محمد سليمان	ميكانيكا تطبيقية GE236	4
(1)		ديناميكا حرارية GE234	5
(1)	أ. سألما الزليتي	إحصاء وإحتمالات GS242	6
(1)	أ. سالم الطرشاني	هيدروليك GS240	7
(3)&(2)&(1)		رياضة III GS232	8
(1)	أ. أنس المغربي	العلامه الذهبية GS351	9
(2) & (1)	أ. عبير العوامي	أساسيات الاقتصاد الهندسي GE361	10
(1)	أ. يحي عثمان	أجهزة قياس ونظم GE243	11
(1)		تفصيل عددي GE246	12
(2) & (1)	أ. سالم الترهوني	لغة إنجليزية III GH231	13
(2) & (1)	د. عمر بلوله	مناهج البحث وكتابة التقارير GH241	14
(2) & (1)	أ. فائزة عبدالستار	أسس هندسة كهربائية GE235	15

اعتماد من رئيس القسم العام

محمد سليمان بشير



جدول الامتحانات الجزئية لفصل الدراسي (ربيع 2022)
لمواد القسم العام والمواد المشتركة مع الأقسام العلمية
لكليات (الهندسة التقنية – العلوم الهندسية – علوم الطيران)



التوقيت				الأيام
الفترة المسائية 2:00 – 12:00		الفترة الصباحية 11:00 – 9:00		
هندسة مواد GE244	لغة عربية GH126	تقنية ورش GE233	ثقافة عامة GH116	الخميس 2022/5/19
مناهج البحث وكتابة التقارير GH241	رياضة II GS123	رياضة III GS232	رياضة I GS113	السبت 2022/5/21
جبر خطي GS240	لغة إنجليزية II GH125	لغة إنجليزية III GH231	لغة إنجليزية I GH115	الأحد 2022/5/22
ميكانيكا موانع GE245	تطبيقات حاسوب GE124	ديناميكا حرارية GE234	مبادئ الحاسب الآلي GE114	الاثنين 2022/5/23
تحليل عددي GE246	كيمياء II GS121	ميكانيكا تطبيقية GE236	كيمياء I GS111	الثلاثاء 2022/5/24
أساسيات الاقتصاد الهندسي GE361	رسم هندسي II GE127	أسس هندسة كهربائية GE235	رسم هندسي I GE117	الأربعاء 2022/5/25
أساسيات الإحصاء والاحتمالات GS127		أجهزة قياس وتحكم GE243		
السلامة المهنية GS351	فيزياء II GS122	الإحصاء والاحتمالات GS242	فيزياء I GS112	الخميس 2022/5/26

كل من منظمي الدراسة والامتحانات
د. أممي منصور د. أممي الصوري

اعتماد من مجلس القسم العام
أ. محمد سليمان نيشير

جامعة النجم الساطع - البريقة

جدول الامتحانات النهائية لفصل الدراسي الربيع (2022) لمواد القسم العام ومواد المشتركة

لكليات (الهندسة التقنية ، علوم طيران ، العلوم الهندسية)

14:00-12:00		11:0-09:00		أيام الأسبوع
رمز المادة	المادة	رمز المادة	المادة	
GS240	جبر خطي	GE127	رسم هندسي II	الخميس 2022/06/16
GE117	رسم هندسي I	GS127	أساسيات الإحصاء والاحتمالات	
GS232	رياضة III	GS113	رياضة I	السبت 2022/06/18
GE246	تحليل عددي	GS123	رياضة II	الأحد 2022/06/19
GE235	أسس هندسة كهربائية	GS111	كيمياء I	الاثنين 2022/06/20
GH241	مناهج الحث وكتابة التقارير	GS121	كيمياء II	الثلاثاء 2022/06/21
GH231	لغة انجليزية III	GH115	لغة انجليزي I	الأربعاء 2022/06/22
GS242	إحصاء واحتمالات	GH125	لغة انجليزية II	الخميس 2022/06/23
GE234	ديناميكا حرارية	GS112	فيزياء I	السبت 2022/06/25
		GS351	السلامة المهنية	
GE243	أجهزة قياس وتحكم	GS122	فيزياء II	الأحد 2022/06/26
GE233	تقنية ورش	GE114	مبادئ الحاسب الآلي	الاثنين 2022/06/27
		GE361	أساسيات اقتصاد هندسي	
GE245	ميكانيكا موانع	GE124	تطبيقات حاسوب	الثلاثاء 2022/1/28
GE236	ميكانيكا تطبيقية	GH116	ثقافة عامة	الأربعاء 2022/06/29
GE244	هندسة مواد	GH126	لغة عربية	الخميس 2022/06/30



الهيئة الدراسية للقسم العام الفصل الدراسي ربيع 2022

التكليف	الساعات البحثية	مجموع الساعات	عدد المجموعات	الساعات	المؤهل	اسم المادة	الاسم
مكلف	لا يوجد	12	1	4	ماجستير	فيزياء I	محمد سليمان بشير منصور
			2	2		ميكانيكا تطبيقية	
			1	2		ديناميكا حرارية	
			1	2		اهتزازات ميكانيكية	
مكلف	لا يوجد	8	4	2	ماجستير	رسم I	صالح احمد بوعجيلة
غير مكلف	لا يوجد	16	4	4	ماجستير	رياضة I	علي خليل اسماعيل الشبخلي
غير مكلف	لا يوجد	16	2	4	ماجستير	رياضة I	سالم سعد سالمانيهوم
			2	4		رياضة II	
غير مكلف	لا يوجد	12	6	2	ماجستير	اللغة الانجليزية I	فاطمه العرفي
غير مكلف	لا يوجد	12	6	2	ماجستير	مبادي الحاسب الالي	رافع خليفه حمد زوبي
غير مكلف	لا يوجد	18	3	4	ماجستير	فيزياء II	مقبوله عبدالقادر محمد بوسيف
			3	2		معمل فيزياء II	
غير مكلف	لا يوجد	12	1	2	ماجستير	اساسيات الإحصاء والاحتمالات	سالمه محمد سالم الزليتنى
			1	2		إحصاء واحتمالات	
			1	4		اساسيات الاحصاء 140	
			1	4		احصاء 141	
غير مكلف	لا يوجد	4	2	2	ماجستير	اللغة الانجليزية II	هشام سالم حمد هانييل
غير مكلف	لا يوجد	4	1	2	دكتور	ماتلاب	منتصر عبدالسلام
			1	2		الالكترونات رقمية	
غير مكلف	لا يوجد	16	2	2	ماجستير	ميكانيكا موانع	عبدالحميد عبدالله العناني
			2	2		معمل ميكانيكا موانع	
			2	2		هندسة مواد	
			1	2		ميكانيكا معادن	
			1	2		اداره صناعيه	
غير مكلف	لا يوجد	18	3	4	ماجستير	رياضة III	سالم الحسين الطرشاني
			2	2		اساسيات تحليل رياضي	
			1	2		الجبر الخطي	



قائمة بأسماء أعضاء هيئة التدريس / القسم العام



لفصل الدراسي ربيع 2022

المقرر الدراسي	أسم عضو هيئة التدريس	رت
	محمد سليمان بشير منصور	1
	محمد أحمد محمد حويل	2
	أحمد نصر منصور نصر	3
	عبدالله موسى سعيد اعبيد	4
	عبدالباسط محمد عاشور كويري	5
	علي خليل اسماعيل الشبخلي	6
	سالم سعد سالم النيهوم	7
	رافع خليفة حمد محمد	8
	فاطمة فرج محمد خليفة	9
	محمد منصور عبدالرحمن الزناتي	10
	المنتصر بالله علي سعيد محمد	11
	صالح أحمد بو عجيبة مفتاح	12
	مقبولة عبدالقادر محمد بوسيف	13
	أنس عبدالله محمود عبدالحفيظ المغربي	14
	خالد آدم آدم أحمد	15
	هشام سالم حمد فرج هابيل	16
	فائز سليمان رشيد أبو عمره	17
	النذير خلف الله العطا عبدالعاطي	18
	سالمة محمد سالم الزليتنى	19
	عبدالحميد عبدالله محمد عيسى	20
	ثابت محمد أبو القاسم محمد	21
	سالم الحسين محمد الحسين الطرشاني	22
	عبير مصطفى علي ابريك	23
	يحي محمد عثمان الصادق	24
	عمر بلوله علي احمد	25
	فايزة عبدالستار بوحجيل بشير	26
	محمد جمعة فرج فضل الله	27

دليل الطالب

نظام الدراسة بالتسمير

1. الدراسة بالكلية وفقاً لنظام الفصل الدراسي المغلق وينقسم العام الدراسي الى فصلين دراسيين (الربيع - الخريف) وتكون مدة الدراسة في كل فصل (14) أسبوع مضاف اليها اسبوعان لعقد الامتحانات النهائية .
2. تجديد القيد بداية كل فصل وفق المواعيد المحددة وعلى الطالب الحضور شخصياً .
3. يجوز للطالب إيقاف القيد خلال شهر من بداية الدراسة وفق المدة المحددة في التقويم ، ويحق له إيقاف القيد مرتين فقط خلال دراسته الجامعية .
4. لا يعتبر الطالب ناجحاً ولا تجمع له الدرجة في الامتحان النهائي حتى يتحصل على نسبة 20% من الدرجة النهائية .
5. لا يتخرج الطالب الا بعد حصوله على معدل تراكمي (55%) .
6. يفصل الطالب بعد حصوله على ثلاث إنذارات (معدله اقل من 55% في ثلاثة فصول) .
7. كل ما يتعلق بالطالب في صورة تعليمات على استمارة الطالب من الخلف .

طريقة حساب المعدل:

(درجة المادة 1 × عدد وحداتها + درجة المادة 2 × عدد وحداتها +) ÷ عدد الوحدات الكلية

☑ أعداد منسق الجودة

هـ.م. طه عبدالله