

Norah H. Alonizana

Assistant Professor

Personal Data

Nationality | Saudi

Date of Birth | 15/03/1975

Department | Physics

Official UoD Email | None

Office Phone No. | None

Language Proficiency

Language	Read	Write	Speak
Arabic	Excellent	Excellent	Excellent
English	Good	Good	Good
Others	None	None	None

Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
02/06/1428	Ph. Doctorate	King Faisal University	
09/10/1424	Master	Ministry of Education	
09/02/1418	Bachelor	Ministry of Education	

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

PhD	Four-Dimensional Spectral Fingerprinting of Crude Petroleum Oils Using Time-Resolved Laser-Induced Fluorescence.
Master	Application of Interference Methods of Scattered Laser Light for the Formation of Optical Fingerprint for Different Material and Measurement of Their Roughness
Fellowship	

Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work			Date
Assistant Professor	University of Dammam	Science College for Girl in Dammam	Physics Department	1438
Assistant Professor	King Saud University	Science College	Physics & Astronomy Department	1432-1438
Assistant Professor	King Faisal University	Science College for Girl in Dammam	Physics Department	1430-1432

Lecturer	King Faisal University	Science College for Girl in Dammam	Physics Department	1424-1430
Demonstrator	Ministry of Education	Science College for Girl in Dammam	Physics Department	1418-1424

Administrative Positions Held: (Beginning with the most recent)

Administrative Position	Office	Date
Attorney Department of Physics & Astronomy in	King Saud University	1433-1436

Scientific Achievements

Published Refereed Scientific Researches

(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
1	Abeer Al-Towyan, Nabil Ben Nessib, Norah Alonizan , Rabia Qindeel, Nafeesah Yacoub	Stark widths dependence on electron temperature for neutral chromium spectral lines	European Physical Journal Plus Jan 2016
2	Norah Alonizan , Rabia Qindeel, and Nabil Ben Nessib	Atomic Structure Calculations for Neutral Oxygen	International Journal of Spectroscopy 04/05/2016
3	Alonizan N., Qindeel R. , Nessib N.B. , SahalBréchet S. , Dimitrijević M.S.	Stark Broadening Parameters for Neutral Oxygen Spectral Lines	Journal of Astrophysics and Astronomy 2015
4	Walid Tawfik, Leda G. Bousiakoua, Rabia Qindeel, W.A.Farooq, Norah H. Alonizana , AMAL J. FATANId	Trace analysis of heavy metals in groundwater samples using laser induced breakdown spectroscopy (LIBS)	Optoelectronics And Advanced Materials. 1-2, January – February 2015,
5	Rabia Qindeel, Leda G. Bousiakou, Walid Tawfik, W.A. Farooq, Norah H. Alonizan , Salwa Alsaleh and Dimitris Siachos	Trace Element Analysis Using ICP-MS in the Shallow Aquifers of The Haier Region, Saudi Arabia	Middle-East Journal of Scientific Research 23/08/2015
6	Rabia Qindeel, W. A. Farooq, Norah Alonizan , M. R. Baig.	Effect of Gamma Radiation on Morphological & Optical Properties of ZnO nano-Powder,	Nanoscience and Nanotechnology for Next Generation (NaNONG) 2015), 29-31 October 2015, Turkey.
7	Rabia Qindeel, Hamdah S. Alanazi, Norah Alonizan , Leda G. Bousiakou, W.A. Farooq, M. Atif.	Characterization of Multi-Layered TiO ₂ -ZnO-TiO ₂ Nano-structured Thin Film Prepared by Sol-Gel Spin Coating System.	Nanoscience and Nanotechnology for Next Generation (NaNONG) (2015), 29-31 October 2015, Turkey.
8	Rabia Qindeel, Norah Alonizan , W. A. Farooq, M. R. Baig.	Optical Band Gap Energy of Alpha and Laser Irradiated CN-85 Nuclear Track Detector.	Journal of Current Nanoscience. Submitted 15 January, 2014.
9	Nabil Ben Nessib, Norah Alonizan , Rabia Qindeel, Sylvie Sahal-Bréchet, Milan S. Dimitrijević.	The OIV 1407.3 Ao /1401.1 Ao emission-line ratio in a plasma.	Advances in Space Research. 30/10/2013.

10	Muhammad Afzal, Rabia Qindeel, Hafiz Muhibb Ullah Zulkafal and Norah Alonizan.	The role of medical physics to diagnose head and neck cancer.	World Journal of medical Science.01/09/2013
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Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date
1	Rabia Qindeel, Hamdah S. Alanazi, Norah Alonizan , Leda G. Bousiakuo, W.A. Farooq, M. Atif	Characterization of Multi-Layered TiO ₂ -ZnO-TiO ₂ Nano-structured Thin Film Prepared by Sol-Gel Spin Coating System.	Nanoscience and Nanotechnology for Next Generation (NaNONG) 29-31 October 2015
2	Rabia Qindeel, W. A. Farooq, Norah Alonizan , M. R. Baig	Effect of Gamma Radiation on Morphological & Optical Properties of ZnO nano-Powder	Nanoscience and Nanotechnology for Next Generation (NaNONG) 29-31 October 2015,

Teaching Activities

Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	General Physics (2)	PHYS 102	Lectures
2	General Physics	PHYS 103	Lectures
3	General Physics (1) (Electricity and Magnetism)	PHYS 104	Lectures
4	General Physics (II)	PHYS 111	Lectures
5	Vibrations and waves	PHYS 234	Lectures
6	Classical Mechanics II	PHYS 312	Lectures
7	Electromagnetic Theory.		Lectures
8	General Physics(2) 'Modern Physics'		Lectures
9	Wave Physics Laboratory	PHYS 395	Laboratory

Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

1	General Physics (2) - PHYS 102: Vectors, Motion in straight line, Newton's Laws of motion, work, energy and momentum, simple harmonic motion, elasticity, mechanics of non-viscous fluids, flow of viscous fluids, surface tension, temperature, quantity of heat, work and heat
2	General Physics - PHYS 103: Introduction (Vectors), Motion in one dimension with constant acceleration, Motion in two dimension with application to projectile motion and circular motion, Newton's Laws of Motion, Work and Energy, Potential Energy and conservation of Energy, Linear Momentum and Collisions, Rotation of rigid object about a fix axis.
3	General Physics (1) - PHYS 104: Coulomb's law, electric fields, Gauss' Law, electric potential, potential energy, capacitance and dielectric, currents and resistance, Ohm's law, electrical energy and power, direct current circuits, Kirchoff's rules, magnetic fields, motion of charged particle in a magnetic field, sources of the magnetic field, Ampere's law, Faraday's law of induction, self-inductance, energy in a magnetic field, mutual inductance, alternating current circuits, the RLC series circuit, power in an A.C. circuit, resonance in RLC series circuit.

4	General Physics (II)- PHYS 111 : Vectors and forces analysis, Electric forces, field and potential. motion of charged particle in electric field, Capacitance, Energy of charged capacitor, Direct current (DC), Ohm's law, Resistance and temperature, energy and power, Kirchhoff's rules, Current in charged Capacitor. Reflection and refraction of light: reflection and refraction laws, refraction by plane-parallel plate, Prism, total internal reflection and the critical angle. Introduction to quantum theory, Black Body radiation, Photoelectric effect, X-Rays, Nuclear Decay, Decay Law, Nuclear reactions, Radioactivity
5	Vibrations and waves - PHYS 234 : Periodic motion. Free Vibrations, mathematical and Fourier analysis. Super position of periodic motion. Sound, plasma, molecular and electrical circuit oscillations analysis. Damped vibrations, heavy light and critical damping. Forced Vibrations. Superposition. Transients. Resonance circuits. Waves: travelling , standing, dispersive and no dispersive. Fourier Theory.
6	Classical Mechanics II – PHYS 312: Normal coordinates, some methods in the calculus of variations, Hamilton's and Lagrangian's principles. Lagrangian's and Hamiltonian's dynamics, central force motion, dynamics of a system of particles, dynamics of rigid bodies, motion in a non-inertial reference frame, coupled oscillations, wave equation
7	Electromagnetic Theory. Gauss law and its applications, Electric Potential, Potential gradient and applications, Capacitors and Dielectrics, Dielectrics and Gauss theory, Electric displacement, polarization, Susceptibility, Dielectric Strength. The magnetic field of conductors, Ampere's law and its applications. Motion of charged particle in magnetic field and its applications. Electromagnetic induction, Induced electromotive force, Faraday's law & Lenz's law, Self and mutual Induction, Current in inductive circuit. Vector operations; Electric and magnetic fields in materials; magnetic potential vector, Electrostatic and magnetic energy; Maxwell's equations in differential forms ; Electromagnetic waves , propagation and radiation. Ac Circuit, Series and Parallel connection, Resonance AC Circuit, Complex Numbers in AC Circuit.
8	General Physics(2) 'Modern Physics'
9	Wave Physics Laboratory –PHYS 395:

Student Academic Supervision and Mentoring

#	Level	Number of Students	From	To
	Bachelor	30		

Supervision of Master and/or PhD Thesis

#	Degree Type	Title	Institution	Date
1	Master: Master's student/ Hinad Musaeid Aleatiq	Effect of UV radiation and impurities on the optical and structural properties of graphene film تأثير الأشعة فوق البنفسجية والشوائب على الخصائص البصرية والتركيبية لأفلام الجرافين	King Saud University	1437
2	Master: Master's student/ Lubna safe Afaneh	Atomic and Spectroscopic Parameters of Copper in Plasma المعاملات الذرية البلازما والطيفية للنحاس	King Saud University	1436
3	Master: Master's student/ Ibtisam Hussein Al-Qahtani	Calculation of atomic and collisional data for singly ionized chromium in plasma حساب البيانات الذرية والتصادمية للكروميوم المتأين في البلازما	King Saud University	-1434 1437

Administrative Responsibilities, Committee and Community Service
(Beginning with the most recent)

Committee Membership

#	From	To	Position	Organization
1	10/02/1438	Now	Student Academic Supervision and Mentoring	Physics Department/ College of Science

Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

1	Computer Software (Matlab, Excel, Word, PowerPoint,
2	