FACULTY FULL NAME:

Norah Hamad Alonizan

POSITION: Associate Professor

Personal Data

Nationality | Saudi

Department | Physics

Official IAU Email | nalonizan@iau.edu.sa

Office Phone No. | 37189

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
Excellent	Excellent	Excellent	
Good	Good	Good	
None	None	None	

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	None

Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work			Date
Associate Professor	Imam Abdulrahman Bin Faisal University	Science College for Girl in Dammam	Physics Department	1442
Assistant Professor	Imam Abdulrahman Bin Faisal University	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
59	MS Aida, N Alonizan, B Zarrad, M Hjiri	Green synthesis of iron oxide nanoparticles using Hibiscus plant extract	Journal of Taibah University for Science 17 (1), 2221827 https://doi.org/10.1080/16583655.2023.2179819
58	MS Aida, **N Alonizan**, B Zarrad, M Hjiri	Influence of plant extract on the homogeneous and heterogeneous green chemistry synthesis of nanostructured ZnO	Journal of Taibah University for Science 17 (1), 2179819 https://doi.org/10.1080/16583655.2023.2179819
57	N Alonizan, MHA Mhareb, KA Mahmoud, MI Sayyed, Nidal Dwaikat, QA Drmosh, Muna Y Alqahtani, Noha A Saleh	Mechanical, structural, and radiation shielding characteristics for transparent boro-tellurite glasses modified with strontium and bismuth oxide ratios	Optical Materials https://doi.org/10.1016/j.optmat.2023.114524
56	M Madani, H Mansour, N Alonizan, K Omri	The Effect of Annealing on the Physical Characteristics and Photocatalytic Activity of CdS/20%α-Fe2O3 Nanocomposites	Chemistry Africa, 1-10 https://doi.org/10.1007/s42250-023-00825-x
55	K Omri, I Najeh, S Mnefgui, N Alonizan, S Gouadria	Microstructure, AC conductivity and complex modulus analysis of Ca-ZnO nanoparticles for potential optoelectronic applications	Materials Science and Engineering: B 297, 116738, 2023 https://doi.org/10.1016/j.mseb.2023.116738
54	N Alonizan, M Kh Hamad, Amnah Alwabsi, Nidal Dwaikat, MHA Mhareb, MI Sayyed, Hammam Abdurabu Thabit, YS Alajerami, Ghaseb N Makhadmeh	Physical, optical, and ionizing radiation shielding properties for barium–tellurite glass with different oxides: an experimental study	Optical Materials https://doi.org/10.1016/j.optmat.2023.114177
53	AM Saeedi, NH Alonizan, AA Alsaigh, L Alaya, L El Mir, MZ El-Readi, ...	Antimicrobial Agent Based on Ca-Doped ZnO Nanopowders	physica status solidi (a) 220 (18), 2300162 https://doi.org/10.1002/pssa.202300162
52	M Madani, H Mansour, K Omri, N Alonizan, S Gouadria, L El Mir	A novel route to the synthesis of CdS/α-Fe2O3 nanocomposite for enhanced photocatalytic performance	The European Physical Journal Plus 138 (8), 720 https://doi.org/10.1140/epjp/s13360-023-04345-y
51	Awatif Alshamari, MHA Mhareb, N Alonizan, Nidal Dwaikat, Ibrahim Alrammah, Mohammed Alsuhybani, QA Drmosh	Influence of various gamma-ray doses on radiation shielding, thermal, mechanical, structural, and optical properties of tellurite, borate, and boro-tellurite glasses modified with molybdenum and strontium oxide	Optical Materials 142, 114159 https://doi.org/10.1016/j.optmat.2023.114159

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
50	Awatif Alshamari, MHA Mhareb, **N Alonizan**, MI Sayyed, Nidal Dwaikat, Ibrahim Alrammah, M Kh Hamad, QA Drmosh	Gamma-ray-induced changes in the radiation shielding, structural, mechanical, and optical properties of borate, tellurite, and borotellurite glass systems modified with barium and bismuth oxide	Optik 281, 170829 https://doi.org/10.1016/j.ijleo.2023.170829
49	Leila Alaya, Ahmad Mohammad Saeedi, Ahmad Abdulhadi Alsaigh, Meshal HK Almalki, Norah Hamad Alonizan, Mokhtar Hjiri	ZnO: V nanoparticles with enhanced antimicrobial activities	Journal of Composites Science https://www.mdpi.com/2504-477X/7/5/190
48	A Al-Rasheedi, NH Alonizan, MS Aida	Effect of Zinc nitrate concentration on the morphology of ZnO nanostructures grown by hydrothermal method	physica status solidi (a), 2200905 https://doi.org/10.1002/pssa.202200905
47	**N. Alonizan**, M. Madani, K. Omri, Rasha A. Abumousa, Alanood A. Alyami, Mody E. Alqahtani, H. M. Almarri & E. M. Algrafy	Hydrothermal synthesis and photocatalytic performance of Dy2O3/Mn nanostructures	European Physical Journal Plus 138:398 https://doi.org/10.1140/epjp/s13360-023-04026-w
46	L Alaya, AM Saeedi, AA Alsaigh, MHK Almalki, **N. H. Alonizan**, M Hjiri	ZnO: V nanoparticles with enhanced antimicrobial activities	Journal of Composites Science 7 (5), 190 https://doi.org/10.3390/jcs7050190
45	M. I. Sayyed, M. H.A. Mhareb, Ibrahim Alrammah, Ali A. A. Alghamdi, Abrar Abdullah Alsurayj, Sarah Talib Alminhali, Mayar Essam Abdelgawad, Zahra Ali Abugurain, **N. Alonizan**, Muna Alqahtani[bc]	Gamma ray shielding and structural properties for TeO2-BaO-MO modified with Bi2O3, TiO2, MnO2, MoO3	Radiation Physics and Chemistry https://doi.org/10.1016/j.radphyschem.2022.110714
44	K Omri, **N Alonizan,** RA Abumousa, M Alqahtani, T Ghrib	Fabrication and enhanced UV-light photocatalytic performance of Mn2O3/Dy2O3 nanocomposites	Journal of Materials Science: Materials in Electronics 34 (5), 432 https://doi.org/10.1007/s10854-023-09875-w
43	K Omri, S Gouadria, M Madani, S Mnefgui, **N Alonizan,** F Alharbi	Doping effects of Ca2+ on the optical and dielectric properties of Ca/ZnO nanopowder materials	Journal of Materials Science: Materials in Electronics 34 (5), 444 https://doi.org/10.1007/s10854-023-09909-3
42	MI Sayyed, S Hashim, Amnah Alwabsi, **N Alonizan**, M Kh Hamad, YSM Alajerami, Hafedh Kochkar, MHA Mhareb	Gamma, neutron, and charged particles shielding features and structural properties for barium tellurite glass modified by various oxides	Journal of Materials Science: Materials in Electronics 34 (3), 180 https://doi.org/10.1007/s10854-022-09608-5
41	Asmaa Al-Rasheedi **N. H. Alonizan** Akhlur Rahman Ansari M. Abdel-Daiem M. S. Aida1	Influence of salt solution concentration on structural properties	Applied Physics A https://doi.org/10.1007/s00339-022-05937-8

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
40	Muna Y. Alqahtani, Noha Saleh, M. H. A. Mhareb, Taher Ghrib, M. I. Sayyed, Y. S. M. Alajerami, Filiz Ercan, **N. Alonizan**, Wafa Abdullah & Dana Aldossary	Structural, morphology, and radiation shielding properties of Mg_2FeTiO_6 ceramic modified with different concentrations of ZnO	Journal of Materials Science: Materials in Electronics https://doi.org/10.1007/s10854-022-08732-6
39	Filiz Ercan Nabilah Alamroo Taher Ghrib Tarek Kayed Bekir Ozcelik Ismail Ercan **Norah Alonizan** Samar A.Abubshait	Structural, optical, and electrical properties of Zn (1-x) MgxO nano-compounds and ZnO/Zn (1-x) MgxO heterostructures	Materials Chemistry and Physics https://doi.org/10.1016/j.matchemphys.2022.126479
38	**N H Alonizan**	Elucidation of photocatalytic degradation mechanism of an organic pollutant based on $Gd_2{-}xTi_2{-}xFe_xO_7$ nanomaterials under simulated visible light	European Physical Journal Plus https://doi.org/10.1140/epjp/s13360-022-02919-w
37	K. Omri **N. Alonizan**	Enhanced photocatalytic performance and impact of annealing temperature on TiO_2/Gd_2O_3:Fe composite	Journal of Materials Science: Materials in Electronics. https://doi.org/10.1007/s10854-022-08451-y
36	**N H Alonizan**	Photoluminescence properties of Al-doped ZnO synthesized via facile sol-gel route	Journal of Alloys and Compounds https://doi.org/10.1016/j.jallcom.2022.165084
35	MS Aida, **N H Alonizan**, MA Hussein, M Hjiri, O Abdelaziz, R Attaf, B Zarrad	Facile Synthesis and Antibacterial Activity of Bioplastic Membrane Containing In Doped ZnO/Cellulose Acetate Nanocomposite	Journal of Inorganic and Organometallic Polymers and Materials https://doi.org/10.1007/s10904-021-02171-2
34	Azzah Ibrahim Alghamdi, Ibtisam Mohammed Ababutain, **Norah Hamad Alonizan,** Mokhtar Hjiri, Ahmed Hosny Hammad, B. Zerrad & Mohammed Salah Aida	Antibacterial activity of stannate M2SnO4 (M = Co, Cu, Mg, Ni and Zn) nanoparticles prepared by hydrothermal	Applied Nanoscience (2022) https://doi.org/10.1007/s13204-021-02274-9
33	M. S. Aida, M Hjiri, **N. H Alonizan**, B Zarrad, A. H Hammad & M. K. Al Zahrani[2]	ZnO and Simonkolleite Nanocomposite Synthesis via Green Chemistry Using Hibiscus Flower Extract	ECS Journal of Solid State Science and Technology, Volume 10, Number 12 https://iopscience.iop.org/article/10.1149/2162-8777/ac44f2

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
32	Mohammad Hasan Abu Mhareb, Muna Alqahtani, Muna Alqahtani, Y.S.M. Alajerami Show, **Norah Alonizan,** Kawa M. Kaky Kawa & M. Kaky	Ionizing radiation shielding features for titanium borosilicate glass modified with different concentrations of barium oxide	Materials Chemistry and Physics, July 2021 https://doi.org/10.1016/j.matchemphys.2021.125047
31	Ridha Hamdi, Amani Rached, Imen Massoudi, Ruba Al-Zuraie, Kawther Al-Hamadah, Amal Al-Otaibi, Tahani Flemban, **Norah Alonizan** & Tahr Ghrib	Electrodeposition Study of Silver: Nucleation Process and Theoretical Analysis	Journal of Electronic Materials, July 2021 https://link.springer.com/article/10.1007/s11664-021-09055-8
30	Rabia Qindeel, **Norah H. Alonizan,** Eman A. Alghamdi & Manal A. Awad	Synthesis and characterization of spinel ferrites for microwave devices	Journal of Sol-Gel Science and Technology, March 2021 https://link.springer.com/article/10.1007/s10971-021-05470-9
29	**N. Alonizan**	Effects of CdS nanoparticles on the physical Properties of T-CdS nanocomposite materials	Journal of Inorganic and Organometallic Polymers and Materials, 20 August 2020 https://doi.org/10.1007/s10904-020-01722-3
28	M.H.A. Mhareb, Y.S.M. Alajerami,*, M.I. Sayyed, Nidal Dwaikat, Muna Alqahtania, Fatimh Alshahria, Noha Saleha, **N. Alonizan**, Taher Ghrib, Sarah Ibrahim Al-Dhafar	Radiation shielding, structural, physical, and optical properties for a series of borosilicate glass	Journal of Non-Crystalline Solids, 550 (2020) 120360 https://doi.org/10.1016/j.jnoncrysol.2020.120360
27	M. A. Mhareb, Muna Alqahtani, Fatimh Alshahri, Y. Alajerami, Noha Saleh, **N. Alonizan**, M. Sayyed, M. Ashiqa, Taher Ghriba, Sarah Al-Dhafar, Tasneem Alayed, Mohamed A. Morsyh	The impact of barium oxide on physical, structural, optical, and shielding features of sodium zinc borate glass	Journal of Non-Crystalline Solids, V(541), August 2020 https://doi.org/10.1016/j.jnoncrysol.2020.120090
26	M. A. Mhareb, Y. Alajerami, Nidal Dwaikat, M. Al-Buriahi, Muna Alqahtani, Fatimh Alshahri, Noha Saleh, **N. Alonizan**, M. Saleh, M. Sayyed	Investigation of photon, neutron and proton shielding features of H3BO3–ZnO–Na2O–BaO glass system	Nuclear Engineering and Technology, 26 July 2020 https://doi.org/10.1016/j.net.2020.07.035
25	M. M. Althubayti, M. Hjiri, N. H. Alonizan, O. M. Lemine, M. S. Aida	Influence of divalent metals (Zn, Cu and Co) on the synthesis and magnetic properties of spinel ferrite nanopowders	Journal of Materials Science Materials in Electronics, 7 April 2020 31, 8194–8205 (2020). https://doi.org/10.1007/s10854-020-03354-2

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
24	**N. Alonizan,** L. Chouiref, K. Omri, M. A. Gondal, Nawal Madkhali, Taher Ghrib, Abdullah I. Alhassan	Photocatalytic Activity, Microstructures and Luminescent Study of Ti-ZS:M Nano-composites Materials	Journal of Inorganic and Organometallic Polymers and Materials, 19 May 2020 https://doi.org/10.1007/s10904-020-01598-3
23	M. Hjiri, **N. H. Alonizan**, M. M. Althubayti, S. Alshammari, H. Besbes, M. S. Aida	Preparation and photoluminescence of NiFe2O4 nanoparticles	Journal of Materials Science Materials in Electronics, July 2019 https://doi.org/10.1007/s10854-019-01914-9
22	M.H.A. Mhareb, Y.S.M. Alajerami, Muna Alqahtani, Fatimh Alshahri, Noha Saleh, **N. Alonizan**, M. Maghrabi, S. Hashim, S.K. Ghoshal	Dosimetric features and kinetic parameters of a glass system dosimeter	Luminescence, 35(4), December 2019 https://doi.org/10.1002/bio.3761
21	Rabia Qindeel, **N. Alonizan**.	Improved structural and magnetic properties of Polypyrrole substituted spinel ferrites composites	Materials Science & Engineering B, 244 (2019) 43–48 Accepted 24 April 2019 https://doi.org/10.1016/j.mseb.2019.04.022
20	K. Omri, **N. Alonizan**	Effects of ZnO/Mn Concentration on the Micro-structure and Optical Properties of ZnO/Mn–TiO2 Nano-composite for Applications in Photo-Catalysis	Journal of Inorganic and Organometallic Polymers and Materials January 2019, Volume 29, Issue 1, pp 203–212 (27 September 2018)
19	**N. Alonizan**, S. Rabaoui, K. Omri, Rabia Qindeel	Microstructure and luminescence properties of ZnO:Mn nano-particles and ZnO:Mn/TiO2 nano-composite synthesized by a two-step chemical method	Applied Physics A (124 (10), 710) 22 September 2018 https://doi.org/10.1007/s00339-018-2127-y
18	Nafeesah Abdul Rahim Yaqub, Rabia Qindeel , **Norah Alonizan**, Nabil Ben Nessib	Expectation Values of the Neutral Chromium Radius	Atoms 6 (3), 51 12 September 2018
17	**N. Alonizan**, R Qindeel	Structural and magnetic properties of ytterbium substituted spinel ferrites	Applied Physics A 124 (6), 408 04 May 2018
16	R Qindeel, **N Alonizan**	Structural, dielectric and magnetic properties of cobalt based spinel ferrites	Current Applied Physics Current Applied Physics 18 (2018) 519–525
15	M. I. Khan, Muhammad Saleem, K. A. Bhatti, Rabia Qindeel, Hayat Saeed Althobaiti & **Norah Alonizan**	Comparative study of multilayered ZnO/TiO2/ZnO and TiO2/ZnO/TiO2 thin films prepared by sol–gel dip coating method	Journal of Materials Science Materials in Electronics 19 August 2017 **28,** 17499–17504 (2017) https://doi.org/10.1007/s10854-017-7685-9

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
14	MI Khan, KA Bhatti, R Qindeel, **N Alonizan**	Sol–gel deposition and characterization of multilayer 2% Cu doped TiO 2 nano structured thin films	Journal of Materials Science: Materials in Electronics 28 (13), 9471-9477, March 2017
13	MI Khan, KA Bhatti, R Qindeel, HS Althobaiti, **N Alonizan**.	Structural, electrical and optical properties of multilayer TiO2 thin films deposited by sol–gel spin coating	Results in physics 7, 1437-1439 (1.259), March 2017
12	MI Khan, KA Bhatti, R Qindeel, **N Alonizan**, HS Althobaiti	Characterizations of multilayer ZnO thin films deposited by sol-gel spin coating technique	Results in Physics 7, 651-655, December 2016
11	**N Alonizan**, R Qindeel, N Ben Nessib	Atomic structure calculations for neutral oxygen	International Journal of Spectroscopy, May 2016 (0.79).
10	A Al-Towyan, NB Nessib, **N Alonizan**, R Qindeel, N Yacoub	Stark widths dependence on electron temperature for neutral chromium spectral lines	The European Physical Journal Plus 131 (1), 9 (1.377), 2016
9	MI Khan, KA Bhatti, R Qindeel, LG Bousiakou, **N Alonizan**	Investigations of the structural, morphological and electrical properties of multilayer ZnO/TiO2 thin films, deposited by sol–gel technique	Results in physics 6, 156-160
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.(1.096)
7	**N Alonizan**, R Qindeel, NB Nessib, S Sahal-Bréchot, MS Dimitrijević	Stark Broadening Parameters for Neutral Oxygen Spectral Lines	Journal of Astrophysics and Astronomy 36 (4), 0,(2015) (0.329)
6	R Qindeel, **N Alonizan**, MR Baig, WA Farooq, SSAGMS Al-Garawi	Study of Optical properties of Alpha and Nd: YAG Laser Irradiated Cellulose Nitrate Polymer	Organo Opto-Electronics An International Journal 1 (1), 17-24
5	R Qindeel, LG Bousiakou, W Tawfik, WA Farooq, **N Alonizan**, S Alsaleh, ...	Trace element analysis using ICP-MS in the shallow aquifers of the Haier region, Saudi Arabia	Middle-East Journal of Scientific Research 23 (8), 1941-1948 (2015)
4	W Tawfik, LG Bousiakou, R Qindeel, WA Farooq, **N Alonizan**, AJ Fatani	Trace analysis of heavy metals in groundwater samples using laser induced breakdown spectroscopy (LIBS)	OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS 9 (1-2), 185-192
3	NB Nessib, **N Alonizan**, R Qindeel, S Sahal-Bréchot, MS Dimitrijević	The OIV 1407.3 Å/1401.1 Å emission-line ratio in a plasma	Advances in Space Research 54 (7), 1190-1194 (2013) (1.358)
2	NB Nessib, **N Alonizan**, R Qindeel, A Al-Towyan, N Yacoub	Temperature dependence of atomic spectral line widths for neutral chromium	BOOK OF ABSTRACTS, 15

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
1	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 Sciences 9(1):43-48 · January 2013

Refereed Scientific Research Papers Accepted for Publication

#	Name of Investigator(s)	Research Title	Journal	Acceptance Date
	NONE			

Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date
	-		
	-		

Completed Research Projects

#	Name of Investigator(s) (Supported by)	Research Title	Report Date
	-		
	-		

Current Researches

#	Research Title	Name of Investigator(s)
	-	
	-	

Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of the Conference	Extent of Contribution
3	M. Mishal, **Norah Hamad Alonizan**, Mokhtar Hjiri, M.s. Aida	Preparation of iron oxide nanoparticles doped with divalent metal: Application for heavy metal removal from waste water	AIP Conference Proceedings 2123(1):030009 17 July 2019 https://doi.org/10.1063/1.5117040

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 Nanotechnolgy for Next Generation (NaNoNG) 29-31 October 2015,
1	Rabia Qindeel, Hamdah S. Alanazi, **Norah Alonizan**, Leda G. Bousiakuo, W.A. Farooq, M. Atif	Characterization of Multi-Layered TiO2-ZnO-TiO_2 Nano-structured Thin Film Prepared by Sol-Gel Spin Coating System.	Nanoscience and Nanotechnolgy for Next Generation (NaNoNG) 29-31 October 2015

Membership of Scientific and Professional Societies and Organizations

- **None**

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
10	Laboratory Physics (1)	PHYS 306N	Laboratory
11	Physics I	PHYS 202	Lectures
12	Electronics2 (Laboratory)	PHYS 308N	Laboratory
13	Seminar-2	PHYS 412N	Seminar
14	PHYSICS I	PHYS 202	Lectures
15	PHYSICS II	PHYS 206	Lectures
16	Atomic and molecular spectra	PHSY 501	Lectures
17	Physics research project	PHSY 509	Research

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, Kirchhoff'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:
10	Laboratory Physics 1 Do a series of experiments in advanced mechanics and light, heat, electricity, and properties of the material and modern physics
11	Physics I Recognize the basic principles of physics in the branches of mechanics, movement, force sand fluid mechanics, as well as mathematical treatment. Be able to explain some physical phenomena. Conclude the basic laws of mathematical physics correct. Gain practical experience through achieve some experiments related to the course
12	Electronics(2)(Laboratory)
13	Seminar-2
14	Physics I (PHYS 202) This course provides a thorough introduction to the basic concepts of physics for science students. It covers mechanics in one dimensional Cartesian coordinates system, harmonic oscillator, electrostatic, magnetostatic fields, simple circuits, heat, fluids, properties of matter and geometrical optics. The examples and problems selected for this course give students the necessary knowledge and skills to describe the basic concepts based on a small number of fundamental physics and mathematics principles. Practical application was provided in correspondence to the main contents.
15	Physics II (PHYS 206) This course includes the Fundamental concepts of Newtonian mechanics and waves considering, Cartesian, cylindrical and spherical coordinates Systems. This course covers the following topics: Motion in Two or Three Dimensions, Newton's Laws of Motion, Applying Newton's Laws, Work and Kinetic Energy, Potential Energy and Energy Conservation, Momentum, Impulse, and Collisions, Rotation of Rigid Bodies, Dynamics of Rotational Motion, Equilibrium and Elasticity, Fluid Mechanics, Gravitation, Periodic Motion, Mechanical Waves, Sound and Hearing. The examples and problems selected for this course give students the necessary knowledge and skills to describe the basic concepts based on a small number of fundamental PHYSsics and mathematics principles.

Postgraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Spectroscopy Master	PHYS 561	Lectures

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

1	Spectroscopy (Master): 1- Introduction to Spectroscopy 2- A Classical Description of Absorption 3- Frequency- and Time-Domain Spectroscopy 4- Principles of Atomic Spectroscopy 5- Principles of Molecular Spectroscopy 6- Vibrational-Rotational Spectroscopy 7- Electronic Spectroscopy 8- Magnetic Resonance Spectroscopy. 9- Spectroscopic techniques.

Course Coordination

#	Course Title and Code	Coordination	Co-coordination	Undergrad	Postgrad	From	To
1	Physics I (PHYS 202)	√		√		2018	2020
2	Physics II (Mechanics and waves) (PHYS 202)	√		√		2018	2020
3	Spectroscopy	√			√		

Guest/Invited Lectures for Undergraduate Students

#	Activity/Course Title and Code	Subject	College and University or Program	Date
	-			
	-			

Student Academic Supervision and Mentoring

#	Level	Number of Students	From	To
1	Level 3	25	2017	now

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	1440
2	Master: Master's student/ Lubna safe Afaneh	Atomic and Spectroscopic Parameters of Copper in Plasma المعاملات الذرية البلازما والطيفية للنحاس	King Saud University	1438
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	1437

Ongoing Research Supervision

#	Degree Type	Title	Institution	Date
	-			

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

Administrative Responsibilities

#	From	To	Position	Organization
	-			

Committee Membership

#	From	To	Position	Organization
1				
2	20/08/2020	now	Organization and arrangement the Examinations	Physics Department/ College of Science
3	10/02/1438	20/08/2020	Student Academic Supervision and Mentoring	Physics Department/ College of Science

Scientific Consultations

#	From	To	Institute	Full-time or Part-time
	-			

Volunteer Work

#	From	To	Type of Volunteer	Organization
	-			

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

1	Computer Software (Origin, MatLab, Excel, Word, PowerPoint}
2	

Last Update

01/12/2023