



**FACULTY FULL NAME:** Hiba Baha Eldin Sayed Omer

**POSITION:** Assistant Professor

### Personal Data

Nationality | Sudanese

Date of Birth | 09-May-1970

Department | Department of Radiological Sciences  
College of Applied Medical Sciences

Official IAU Email | [hbomer@iau.edu.sa](mailto:hbomer@iau.edu.sa)

Office Phone No. | 966 563288758

### Language Proficiency

Language	Read	Write	Speak
Arabic	Excellent	Excellent	Excellent
English	Excellent	Excellent	Excellent
Others (Greek)	Fair	Fair	Fair

### Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
October 2009	PhD.	University of Thessaly	Larisa, Greece
October 1999	MSc.	Aberdeen University	Aberdeen United Kingdom
January 1994	BSc.	University of Khartoum	Sudan

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

PhD	Medical Physics: Monte Carlo Techniques for Electron Radiotherapy
Master	Medical Physics: Electron Beam in Helax-TMS
BSc.	Mathematics & Physics: None
Fellowship	Regular associate: AbdusSalam International Center for Theoretical Physics (ICTP) Italy



### Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work	From	To
Assistant Professor	Imam Abdulrahman Bin Faisal University KSA	2012	Date
Assistant Professor	Ahfad University for Women (AUW) Sudan	2009	2012
Lecturer	AUW Sudan	1999	2009
Visiting lecturer & external examiner	Sudan University of Science and Technology	1999	2012
Teaching assistant	AUW Sudan	1994	1998

### Administrative Positions Held: (Beginning with the most recent)

Administrative Position	Office	Date
Department Coordinator	College of Applied Medical Sciences Department of Cardiac Technology	September 2024
Quality Assurance Coordinator	College of Applied Medical Sciences Department of Radiological Sciences	September 2024
Deputy Dean Freshman Year	Ahfad University for Women	November 2009

### 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	Hiba Omer, Hind Toufig, Elfatih Abuelhia, Mohammed-Elfatih Twfieg	Physics for medical colleges: proposing an extended syllabus	Medicine and Biohealth Journal volume 1 2024
2	Duong Thanh Tai, Nguyen Tan Nhu, Pham Anh Tuan, Abdelmoneim Suleiman, Hiba Omer, Zahra Alirezai, David Bradley, James CL Chow	A user-friendly deep learning application for accurate lung cancer diagnosis	Journal of X-Ray Science and Technology 2024. DOI 10.3233/XST-230255
3	Duong Thanh Tai, Hiba Omer, Le Cuong Quoc, Nguyen Xuan Hai, Van Minh Truong, Abdelmoneim Suleiman, Essam Mattar, Hind Toufig, Nissren Tamam, David Bradley	An open-Source Software for Calculating 1D Gamma Index in Radiation Therapy	Journal of King Saud University – Science. Volume 35, Issue 10, 102937
4	Hoang T.P. Hung, Pham Nhu Tuyen, Duong Thanh Tai, Ha Quoc Long, Abdelmoneim Sulieman, Hiba Omer, Nissren Tamam, Abdullah Almujaally, James C.L. Chow, Ting-Yim Lee	Assessment of radiation exposure in a nuclear medicine department of an oncology hospital.	Journal of Radiation Research and Applied Sciences 2023 <a href="https://doi.org/10.1016/j.jras.2023.100564">https://doi.org/10.1016/j.jras.2023.100564</a>
5	Thanh-Nghia Nguyen, Duong Thanh Tai, Hiba Omer, Abdelmoneim Sulieman, D. A. Bradley	The Design and Construction of a 12-Channel Electrocardiogram Device Developed on an ADS1293 Chip Platform	. Electronics (MDPI Switzerland) 2023, 12,2389. <a href="https://doi.org/10.3390/electronics12112389">https://doi.org/10.3390/electronics12112389</a>



6	Nissren Tamam, H. Salah, Kholoud S. Almogren, Omer Mahgoub, Mohammed Khalil Saeed, Yousef Abdullah, Duong Thanh Tai, Hiba Omer, Abdelmoneim Sulieman, D.A. Bradley	Evaluation of patients' and occupational radiation risk dose during conventional and interventional radiology procedures.	Radiation Physics and Chemistry 207 (2023) 110818 <a href="https://doi.org/10.1016/j.radphyschem.2023.110818">https://doi.org/10.1016/j.radphyschem.2023.110818</a>
7	Hoang T.P. Hung Pham Nhu Tuyen Duong Thanh Tai Ha Quoc Long Abdelmoneim Sulieman Hiba Omer Nissren Tamam Abdullah Almujaally James C.L. Chow Ting-Yim Lee	Assessment of radiation exposure in a nuclear medicine department of an oncology hospital.	Journal of Radiation Research and applied Science (2023)
8	Hiba Omer, Hassan salah Ibrahim, Nissren Tamam, Omer Mahgoub, Abdelmoneim Sulieman, Rufida Ahmed, Mohamed M Abuzaid, Ibrahim E. Saad, Kholoud S. Almogren and D. A. Bradley	Assessment of occupational exposure from PET and PET/CT scanning in Saudi Arabia	Radiation Physics and Chemistry (in press) <a href="https://doi.org/10.1016/j.radphyschem.2022.110642">https://doi.org/10.1016/j.radphyschem.2022.110642</a> (2023)
9	Nissren Tammam, Abdelmoneim Sulieman, Hiba Omer, Hind Toufig, Mohammed Alsaadi, Hassan Salah Ibrahim, Essam Mattar, Mayeen Uddin Kandaker and D. A Bradley	Assessment of breast dose and cancer risk for young females during CT chest and abdomen examinations	Applied Radiation and Isotopes, in press <a href="https://doi.org/10.1016/j.apradiso.2022.110452">https://doi.org/10.1016/j.apradiso.2022.110452</a> (2022).
10	Aya Ahmed, Mohamed Ahmed Ali, Hassan Salah Ibrahim, Rufida Eisa, Hazem Mohieldin, Hiba Omer, Abdelmoneim Sulieman, Nissren Tamam, D. A. Bradley, Hazem Mohieldin Tantawi	Evaluation of uptake values of FDG: Body surface area Vs. body weight correction.	Radiation Physics and Chemistry 201 (Issue 2) <a href="https://doi.org/10.1016/j.radphyschem.2022.110482">https://doi.org/10.1016/j.radphyschem.2022.110482</a> (2022)
11	Yahia H. Johary, Ali Aamry, Sultan Albarakati, Abdullah Alsohaim, Hussein Aamri, Nissren Tamam, Abdelmoneim Sulieman, Hiba Omer, Esameldeen M. Tom, Mayeen Uddin Kandaker and D. A Bradley	Staff radiation exposure at four radiology departments in the Aseer region of Saudi Arabia.	Radiation Physics and Chemistry <a href="https://doi.org/10.1016/j.radphyschem.2022.110302">https://doi.org/10.1016/j.radphyschem.2022.110302</a> (2022)
12	Layal K Jambi, Mohammed Alkhorayef, Mohammed Almuwanis, Hiba Omer, Nazar Alhasan, Duong Thanh Tai, Abdelmoneim Sulieman and D. A. Bradley.	Assessment of the effective radiation dose and radiogenic effect in intravenous urography imaging procedures.	Radiation Physics and Chemistry <a href="https://doi.org/10.1016/j.radphyschem.2022.110351">https://doi.org/10.1016/j.radphyschem.2022.110351</a> (2022)
13	Abdullah Almujaally, Nissren Tamam, Abdelmoneim Sulieman, Duong Thanh Tai, Hiba Omer, Nouf Abuhadi, Hassan Salah Ibrahim, Essam H. Mattar, Mayeen Uddin Kandaker and D. A Bradley	Evaluation of pediatric computed tomography imaging for brain, and abdomen procedures	Radiation Physics and Chemistry <a href="https://doi.org/10.1016/j.radphyschem.2022.110271">https://doi.org/10.1016/j.radphyschem.2022.110271</a> (2022)
14	Duong Thanh Tai, Oanh Luong, Hoai Phuong Pham, Abdelmoneim Sulieman, Fouad Abolaban, Hiba Omer and James C.L. Chow	Dosimetric and radiobiological comparison in head-and-neck radiotherapy using JO-IMRT and 3D-CRT.	Saudi Journal of Biological Sciences, <a href="https://doi.org/10.1016/j.sjbs.2022.103336">https://doi.org/10.1016/j.sjbs.2022.103336</a> (2022)



15	Minh Truong Van, Nguyen Xuan Hai, Vu Dong Cao, Duong Thanh Tai, Khang Pham Dinh, Phuc Nguyen Hoang, Tiep Nguyen Huu, Dinh Tien Hung, Cao Van Hiep, Phan Van Chuan, Hiba Omer, Abdelmoneim sulieman, D. A Bradley and Anh Nguyen Ngoc	Determination of Fe and Tb concentrations in geological and environmental samples using the instrumental neutron activation analysis method combined with the $\gamma - \gamma$ coincidence technique.	Radiation Physics and Chemistry, <a href="https://doi.org/10.1016/j.radphyschem.2022.110203">https://doi.org/10.1016/j.radphyschem.2022.110203</a> (2022)
16	Saad H. Alotaibi, Omaima Nasir, Salma Elsayed, Omaima Ahmed, Roua S. Baty, Suzan A. Abushalwa, Nada Alqadri, Hiba Omer, Hamada H. Amer	Biomedical and histological evidence of Boswellia sp. Burseraceae on kidney and liver function in mice	Journal of King Saud University – Science 34 101691 <a href="https://doi.org/10.1016/j.jksus.2021.101691">https://doi.org/10.1016/j.jksus.2021.101691</a> (2022)
17	Duong Thanh Tai, Truong Thi Hong Loan, Abdelmoneim Sulieman, Nissren Tamam, Hiba Omer and David Bradley	Measurement of Neutron Dose Equivalent within and Outside of LINAC Treatment Vault Using a Neutron Survey Meter	Quantum Beam Sci. 2021, 5, 33. <a href="https://doi.org/10.3390/quantum5040033">https://doi.org/10.3390/quantum5040033</a>
18	Hiba Omer, Nissren Tamam, Suhaib Alameen, Sahar Algadi, Duong Thanh Tai, Abdelmoneim Sulieman	Elimination of Biological and Physical artifacts in Abdomen and Brain Computed Tomography Procedures using Filtering Techniques	Saudi Journal of Biological Sciences. <a href="https://doi.org/10.1016/j.sjbs.2021.11.043">https://doi.org/10.1016/j.sjbs.2021.11.043</a>
19	Meshari Alnaaimi, Abdelmoneim Sulieman, Nissren Tamam, Mohammed Alkhorayef, Musa Alduaij, Talal Mohammedzein, Othman I. Alomai, Alashban, H. Salah, Amr A. Abd-Elghany, Hiba Omer, D.A. Bradley.	Estimation of patient effective doses in PET/CT- 18F-Sodium Fluoride examinations	Applied Radiation and Isotopes 178 (2021) 109965 <a href="https://doi.org/10.1016/j.apradiso.2021.109965">https://doi.org/10.1016/j.apradiso.2021.109965</a>
20	Nissren Tamam, AljuharaAl-Mugrin, Soad Mansour, Abdelrahman Elnour, Mustafa Musa, H. Omer, Abdelmoneim Sulieman, D.A. Bradley	Occupational and patients' effective radiation doses in dental imaging.	Applied Radiation and Isotopes 177 109899 (2021) <a href="https://doi.org/10.1016/j.apradiso.2021.109899">https://doi.org/10.1016/j.apradiso.2021.109899</a>
21	A Sulieman, F Mayhoub, H Salah Ibrahim, H Omer, Alkhorayef, Fouad A Abolaban, H Al- Mohammed, M U Khandaker, D A Bradley	Evaluation of Annual Radiation Exposure of Staff in A Cardiac Catheterization Department in Saudi Arabia	Radiation Protection Dosimetry <a href="https://doi.org/10.1093/rpd/ncab107">https://doi.org/10.1093/rpd/ncab107</a> (2021)
22	Buthayna G Elshaikh, Hiba Omer, MEM Garelnabi, Abdelmoneim Sulieman, Nawader Abdella, Sahar Algadi, Hind Toufig	Incidence, Diagnosis and Treatment of Brain Tumors	Journal of Research in Medical and Dental Science, Volume 9, Issue 6, Page No: 340-347 (2021)
23	A Sulieman, F Mayhoub, H Salah Ibrahim, H Omer, Alkhorayef, Fouad A Abolaban, H Al- Mohammed, M U Khandaker, D A Bradley	Evaluation of Annual Radiation Exposure of Staff in A Cardiac Catheterization	Radiation Protection Dosimetry,



		Department in Saudi Arabia	<a href="https://doi.org/10.1093/rpd/ncab107">https://doi.org/10.1093/rpd/ncab107</a> (2021)
24	Moshi Geso, Salem Saeed Alghamdi, Abdulrahman Tajaldeen, Rowa Aljondi, Hind Alghamdi, Ali Zailae, Essam H. Mattar, Nissren Tamam, Abdulla Aljehani, Hiba Omer and Abdelmoneim Sulieman	Modified Contrast-Detail Phantom for Determination of the CT Scanners Abilities for Low-Contrast Detection	Applied Sciences 11(14):1-8, <a href="https://doi.org/10.3390/app11146661">https://doi.org/10.3390/app11146661</a> (2021)
25	K. Alzimami, A. Sulieman, Hiba Omer, Layal K. Jambi, A. Alfuraih, N. Al Hossain, E. Babikir, M. Alkhorayef, Mayeen Uddin Khandaker, D.A. Bradley.	Evaluation of pediatric radiation doses in computed tomography procedures in the Kingdom of Saudi Arabia	Radiation Physics and Chemistry, Volume 188, November <a href="https://doi.org/10.1016/j.adphyschem.2021.109679">https://doi.org/10.1016/j.adphyschem.2021.109679</a> (2021)
26	Rasha Jaafar, Abdelmoneim Sulieman, Nissren Tamam, Hiba Omer, Abdelrahman Elnour, Ali, Mohammed Alkhorayef, Mayeen Uddin Khandaker, D.A. Bradley.	Multiphase vascular lower limb computed tomography: Assessment of patients' doses and radiogenic risk.	Radiation Physics and Chemistry Volume 188, <a href="https://doi.org/10.1016/j.adphyschem.2021.109675">https://doi.org/10.1016/j.adphyschem.2021.109675</a> (2021)
27	Eltayeb Osman, A. Sulieman, Khalid Alzimami, Nissren Tamam, Layal K. Jambi, E. Babikir, Amr A. Abdelghany, M. Abuzaid, Hiba Omer, D.A. Bradley.	Radiation exposure during therapeutic cardiac interventional procedures.	Radiation Physics and Chemistry Volume 188, <a href="https://doi.org/10.1016/j.adphyschem.2021.109678">https://doi.org/10.1016/j.adphyschem.2021.109678</a> (2021)
28	Hiba Omer.	Radiobiological effects and medical applications of non-ionizing radiation.	Saudi Journal of Biological Sciences. Volume 28, Issue 10, 5585-5592 <a href="https://doi.org/10.1016/j.sjbs.2021.05.071">https://doi.org/10.1016/j.sjbs.2021.05.071</a> (2021)
29	Buthayna G.Elshaikh, Mohamed Garelnabi, Hiba Omer, Abdelmoneim Sulieman, Badria Habeeballa, Rania A. Tabeidi,	Recognition of brain tumors in MRI images using texture analysis.	Saudi Journal of Biological Sciences. <a href="https://doi.org/10.1016/j.sjbs.2021.01.035">https://doi.org/10.1016/j.sjbs.2021.01.035</a> (2021)
30	Omaira Nasir, Nada Alqadri, Salma Elsayed, Omaira Ahmed, S.H. Alotaibi, Roua Baty, Hiba Omer, Suzan A. Abushal, Anja T Umbach	Comparative efficacy of Gum Arabic ( <i>Acacia senegal</i> ) and <i>Tibulus terrestris</i> on male fertility	Saudi Pharmaceutical Journal 28 1791–1796 <a href="https://doi.org/10.1016/j.sjps.2020.11.005">https://doi.org/10.1016/j.sjps.2020.11.005</a> (2020)
31	Hind Toufig, Tarek Benameur, Mohammed-Elfatih Twfieq, Hiba Omer, Tamara El-Musharaf	Evaluation of Hysterosalpingographic findings among patients presenting with infertility	Saudi Journal of Biological Sciences (27) 2876-2882 <a href="https://doi.org/10.1016/j.sjbs.2020.08.041">https://doi.org/10.1016/j.sjbs.2020.08.041</a> (2020)
32	Y. Khairi, H. Omer, A. Sulieman, N. Deiab, Maha H. Mokhtar, Fouad A. Abolaban, M. Alkhorayeff,	Radiation dose homogeneity and critical organs in	Radiation Physics and Chemistry Volume 178,



	D.A. Bradley	radiotherapy treatment of prostate cancer	<a href="https://doi.org/10.1016/j.radphyschem.2020.109000">https://doi.org/10.1016/j.radphyschem.2020.109000</a> (2021)
33	Hiba Omer, Suhaib Alameen, Waleed Mahmoud, Abdelmoneim Sulieman, Omaira Nasir, Fouad Abolaban,	Eye lens and thyroid gland radiation exposure for patients undergoing brain computed tomography examination	Saudi Journal of Biological Sciences 27 342–346 <a href="https://doi.org/10.1016/j.sjbs.2020.10.010">https://doi.org/10.1016/j.sjbs.2020.10.010</a> (2021)
34	A.El-Namrouty, F. Kheir, Sahar Algadi, Nawader Abdella and Hiba Omer	Standardization of Exam Results in Premedical Years	University of Ha'il- Journal of Science (UOHJS) (1)2 pp 32-40 (2020)
35	N. Tammam, A. M. Elnour, H. Omer, A. Sulieman	Rotation Time and Dose Reduction in Chest CT scans	Sch. J. App. Med. Sci., 4(3F):1039-1041 (2016)
36	K. Alzimami, A. Sulieman, E. Babikir , K. Alsafi, M. Alkhorayef, Hiba Omer.	Estimation of effective dose during hystrosalpingography procedures in certain hospitals in Sudan	Applied Radiation and Isotopes; <a href="https://doi.org/10.1016/j.apradiso.2015.02.009">https://doi.org/10.1016/j.apradiso.2015.02.009</a> (2015)
37	Y. Hamza, A. Sulieman, A. Abuderman, K. Alzimami, H. Omer.	Evaluation of Patient Effective Doses in CT Urography, Intravenous Urography and Renal Scintigraphy	Radiation Protection Dosimetry Advance Access (2015)
38	H. Omer, A. Sulieman and K. Alzimami.	Risks of lung fibrosis and pneumonitis after postmastectomy electron radiotherapy	Radiation Protection Dosimetry Advance Access (2015)
39	Abdelrahman M. Elnour, Mohamed Yousef, Hiba Omer, Abdelmoneim Sulieman.	Survey of Patients Radiation Doses in Computed Tomography Chest Imaging Proposal of Diagnostic Reference Level	Sch. J. App. Med. Sci.; (2015)
40	Hiba Omer, Khalid Alzimami and Abdelmoneim Sulieman.	XSTING, software for evaluation radiotherapy planning performed by BEAMMP	Current Medical Imaging Reviews (2014)
41	Hiba Baha Eldin Sayed Omer, Abdelmoneim Sulieman and Omaira Nasir.	Monte Carlo simulation of electron beams; influential parameters and potential sources of simulation faults:	The Journal of Advanced Biomedical and Pathobiology Research vol. 3 no. 1; pp 9-20 (2013)





42	Hiba Omer.	Intensity Modulated Radiotherapy using Monte Carlo for Routine Postmastectomy Radiotherapy	Polish Journal of Medical Physics and Engineering; 18(2) 49-58 (2012)
43	H. Omer, O Nasir and A. Sulieman.	Evaluation of single field electron beams for postmastectomy radiotherapy	Journal of Analytical Oncology 175-180 1 (2012)
44	H. Omer and A. Sulieman.	Simulation of ELEKTA SL18 beams for electron radiotherapy	Asian Journal of Medical and Clinical Sciences Vol. 1 issue 2; pp (2012)
45	Badreldin M.A Elhag, Hiba Omer and Abdelmoneim Sulieman.:	Estimation of Pediatric Radiation Doses in Intravenous Urography	Asian Journal of Medical and Clinical Sciences Vol. 1 issue 1; pp 4-8 (2012)
46	Hiba B. S. Omer, Elmugheira H. Salim, Badreldin M.A Elhag and Abdelmoneim Sulieman	Monte Carlo Techniques in Radiation Medicine	Asian Journal of Medical and Clinical Sciences Vol. 1 issue 1; pp 35-39 (2012)
47	H. Omer and A. Sulieman.	Constraints and Common Techniques in Postmastectomy Radiotherapy	Journal of Science and Technology, Vol. 12 (1); pp 122-133 (2011)
48	Omer H, Sulieman A, Theodorou K, Kappas C.	The Role of Medical and Biomedical Education	International Journal for Scientific Research; vol. 15; pp 57-65 (2006)
49	Sulieman A, Omer H, Theodorou K, Kappas C.	Review on intra and inter-fraction tumor motion measurements for radiotherapy	International Journal for Scientific Research vol. 15; pp 41-55 (2006)

#### Refereed Scientific Research Papers Accepted for Publication

#	Name of Investigator(s)	Research Title	Journal	Acceptance Date

#### Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

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



## Current Researches

#	Research Title	Name of Investigator(s)
1	Radiogenic risks and effective dose from pediatrics computed tomography procedures	Amal Alqahtani, Hiba Omer, Abdullah AlOthman, Ahmed Otayni, Mohamed Alkhorayef, Abdelmoneim Sulieman
2	Radiological interpretation of hemorrhage posterior reversible encephalopathy Syndrome with breast cancer patient on chemotherapy	Fatima Alsaeed, Sara AlWusaibie and Hiba Omer

## Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of the Conference	Extent of Contribution
1	The 12th International Topical Meeting on Industrial Radiation and Radioisotope Measurement Applications (IRRMA)	Riyadh KSA (January 2025)	Oral and poster presentations
2	4th International Forum on Advances in Radiation Physics.	Riyadh KSA (March 2022)	Presenter
3	International Symposium on Radiation Physics	Kuala Lumpur Malaysia (Dec 2021)	Poster presentations
4	4th Congress on Breast Pathology and Cancer Diagnosis,	Toronto, Canada (2017)	Oral and poster presentations
5	International Conference on Dosimetry and its Applications ICDA-2	Surrey UK (2016)	Poster presentation
6	1st European Congress of Medical Physics	Athens, Greece (2016)	Poster presentation
7	9th International Topical Meeting on Industrial Radiation and Radioisotope Measurement Applications	Valencia Spain (2014)	Poster presentation
8	International Conference on Radiation Protection in Medicine	Bulgaria (2014)	Poster presentation

## Membership of Scientific and Professional Societies and Organizations

	Type	Society / council
1.	Member	International Federation of University Women
2.	Member	Organization for Women in Science for the Developing World (OWSD)
3.	Member	European Society for Therapeutic Radiology and Oncology- ESTRO
4.	Member	Member of Scientists without Border Organization
5.	Member	European Federation of Medical Physics
6.	Member	Sudanese Academy for Young Scientists (SAYS)
7.	Member	Women Initiative Group





## Teaching Activities

### Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution 0(no. of lectures/Tutorials. Or labs, Clinics)
1	Mathematics for Radiological Sciences	Math 203	Lectures and Tutorials
2	Radiological Pathology	Path 305	Lectures and Tutorials
3	Cardiac Imaging	CTC223	Lectures, and hospital visits
4	Physics for preparatory year (nursing Track)	PHY 105	Lectures, tutorials and labs
5	Physics for preparatory year (health Track)	PHY 104	Lectures, tutorials and labs
6	Physics for Science Discipline		Lectures, tutorials and labs
7	Physics for Arts Discipline		Lectures, tutorials
8	Biomechanics		Lectures
9	Study skills		Lectures
10	Biostatistics		Tutorials

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

**Mathematics for Radiological Sciences:** This course will provide students with the mathematical background and develop the critical thinking and problem-solving skills they will need to pursue a career in the radiological sciences.

Topics will include a review of exponents, order of operations, factoring, radical and rational expressions; equations and inequalities; linear, quadratic, polynomial, graphs, geometry for imaging, exponential, and logarithmic functions and their applications.

Students will be able to solve equations involving these functions using different techniques including graphical solutions. The students will solve systems of linear equations using matrices. The course will include applications such as radioactive decay and intensity equations.

**Radiological Pathology:** This course is designed to equip the student with basic knowledge of imaging modalities related to the different pathologies. It explains how the different pathologies appear during imaging in comparison to normal tissue. It equips the students with knowledge to suggest a specific imaging modality for patients presenting with health issues

**Physics for preparatory year nursing track:** is an innovative approach that uses Physics to explain the different mechanisms in the human body such as blood flow, breathing, forces on the body, vision, audition and phonation, etc.

**Physics for preparatory year health track:** is an innovative approach that uses Physics to explain the different mechanisms in the human body such as blood flow, breathing, forces on the body, vision, audition and phonation, etc.



Physics for Science Discipline: basic concepts of Physics for first year students, Ahfad University for Women
Physics for Arts Discipline: basic concepts of Physics for first year students, Ahfad University for Women
Physics for Physiotherapy: physics applications in Biomechanics
Study skills: basic skills in reading, writing and preparing for exams
Biostatistics: Tutorials, problems and exercises solving

### Postgraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Radiological Pathophysiology	MDRS 511	Lectures
2	Radiobiology (Cell Biology)		Lectures (partial course)
3	Physics in Medicine MSc		lectures

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

1	This course is designed to equip the postgraduate students with basic knowledge of imaging modalities related to the different pathophysiological concepts. It explains how the different pathologies affect the functions of the body and how they appear during imaging in comparison to normal tissue. It equips the students with knowledge to suggest a specific imaging modality for patients presenting with health issues
2	Physics in Medicine for MSc. In medical Physics, explaining the Physics concepts of our bodies and how these concepts are useful in Medicine. It also explores different diagnostic and therapeutic facilities.

### Course Coordination

#	Course Title and Code	Coordination	Co-coordination	Undergrad	From	To
1	Mathematics for Radiological Sciences MATH 203	✓		✓	2024	date
2	Radiological Pathology 303	✓		✓	2024	date
3	PHY 105		✓	✓	2022	2023
4	Physics for Science Discipline	✓		✓	2009	2012
5	Physics for Arts Discipline	✓		✓	2009	2012

### Student Academic Supervision and Mentoring

#	Level	Number of Students	From	To
1	Preparatory year	23-43	2018	2024



### Supervision of Master and/or PhD Thesis

#	Degree Type	Title	Institution	Date

### Ongoing Research Supervision

#	Degree Type	Title	Institution	Date
1	MSc dissertation	Diagnostic Reference Level (DRL) for nuclear medicine SPECT/CT (co-supervisor)	CAMS Radiological Sciences	Dec 2024

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

#### Administrative Responsibilities

#	From	To	Position	Organization
1	2010	2012	Vice dean of Freshman Year	Ahfad University for Women (AUW)
2	2003	2003	Coordinator of Women's week	School of Family Sciences

#### Committee Membership

#	From	To	Position	Organization
1	2024	Date	Department coordinator	CAMS Radiological Sciences
2	2024	Date	Quality Assurance coordinator	CAMS Radiological Sciences
3	2015	2023	Member of Quality Assurance committee	Department of Basic Sciences Deanship of Preparatory Year and supporting IAU
4	2014	2023	Member of course setting and lecture preparation committee	Department of Basic Sciences Deanship of Preparatory Year and supporting studies,
5	2014	2018	Member of exam committee	Department of Basic Sciences Deanship of Preparatory Year and supporting studies,
6	2000	2012	Member of course committee & lecturer of "Learning Styles & Study Skills"	Ahfad University for Women (AUW)
7	1999	2000	Group leader of quality assurance program for the laboratory unit	Ahfad Center for Science and Technology

#### Scientific Consultations

#	From	To	Institute	Full-time or Part-time
1	2016	2017	MSc. in Medical Physics College of Sciences Imam Abdulrahman in Faisal University	Part-time

#### Volunteer Work



#	From	To	Type of Volunteer	Organization

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

1	Leadership
2	Computer skills
3	Communication skills
4	Teaching skills

**Last Update**

**11/01/2025**