

**MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL**  
**(Formerly West Bengal University of Technology)**  
**Syllabus of B. Sc Medical image Technology**  
**(Effective from 2023-24 Academic Sessions)**

## Graduate Attributes

By the end of the program the students will be able to:

- Understand that this medical science program is aimed at providing excellent carrier opportunity for the students.
- Understand the methods and procedures involved during the creation of images of human parts for the purpose of clinical diagnosis or medical science.
- Know all major areas of modern medical sciences along with physics including Biochemistry, Anatomy, physiology, Radiation physics, all advanced technologies etc.
- get an overall exposure to various aspects with a learning outcome
- To learn basic anatomy and physiology relevant to imaging
- To learn basic physics with respect to each imaging modality
- to perform diagnostic radiology procedures safely and effectively
- to perform necessary post-processing of images
- to learn concepts of prevention of infection during Imaging procedures
- to understand the importance of radiation protection and radiation safety during imaging procedures

## Curriculum Structure

### SEM-1

Sl.	Subject Type	Code	Subject Name	Credits			Total Credits
				L	T	P	
1.	DSC	BMMIT-1101 & BMMIT-1191	Human anatomy	3	0	2	3+2
2.		BMMIT1102 & BMMIT1192	Biochemistry	3	0	2	3+2
3.	DSE	MIC101	Computer Fundamental	3	0	0	3
4.	GE		Any one from GE Basket A/D	3	0	0	3
5.	AECC	AECC101	English & Professional Communication	2	0	0	2
6.	SEC	SEC181	Life Skills & Personality Development	2	0	0	2
7.	VAC	VAC181A/B/C	Yoga/ Health& Wellness/ Sports / Physical Fitness and Wellness/Community Services	2	0	0	2
<b>Total Credit</b>							<b>22</b>

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**SEM-2**

Sl.	Subject Type	Code	Subject Name	Credits			Total Credits
				L	T	P	
1.	DSC	BMMIT-2101 & BMMIT-2191	Basics of Human Physiology	3	0	2	3+2
2.		BMMIT-2102 & BMMIT-2192	Fundamental Physics and basics of Radiation Physics	3	0	2	3+2
3.	DSE	MIC201	Management Information System	3	0	0	3
4.	GE		Any one from GE Basket B/E	3	0	0	3
5.	AEC C	AECC201	Modern Indian Languages and Literature	2	0	0	2
6.	SEC	SEC201	ITSkills	2	0	0	2
7.	VAC	VAC281A/B/C	Critical Thinking / NSS/ Mental Health/ Environmental Studies	2	0	0	2
<b>Total Credit</b>							<b>22</b>

**SEM-3**

Sl.	Subject Type	Code	Subject Name	Credits			Total Credits
				L	T	P	
1.	DSC	BMMIT-3201 & BMMIT-3291	Basic Microbiology	3	0	2	3+2
2.		BMMIT-3202 & BMMIT-3292	Hematology and clinical pathology	3	0	2	3+2
3.	DSE	MIC301	Word and PowerPoint & Spreadsheet Application with Excel	3	1	0	4
4.	GE		Any one from GE Basket C/F	3	0	0	3
5.	AECC	AECC301	The Constitution and Human Rights	2	0	0	2
6.	SEC	SEC301	Understanding basics of Cyber Security	2	0	0	2
<b>Total Credit</b>							<b>21</b>

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**SEM-4**

Sl.	Subject Type	Code	Subject Name	Credits			Total Credits
				L	T	P	
1.	DSC	BMMIT-4201	Equipment for Medical Imaging	4	0	0	4
2.		BMMIT-4202	Medical Terminology and Patient care in Diagnostic Technology	4	0	0	4
3.		BMMIT-4203 & BMMIT-4293	Clinical Radiography and positioning	3	0	2	3+2
4.	DSE	MIC401	Basics of Operating System/ Database Management with SQL	3	1	0	4
5.		MIC402	Graphic Design with Photoshop and Illustrator/ Unix And Shell	3	1	0	4
6.	AECC	AECC401	Universal Human Values (UHV)	2	0	0	2
<b>Total Credit</b>							23

**SEM-5**

Sl.	Subject Type	Code	Subject Name	Credits			Total Credits
				L	T	P	
1.	DSC	BMMIT5301 & BMMIT5391	Digital Imaging & Image processing methods	3	0	2	3+2
2.		BMMIT5302 & BMMIT5392	Dark Room Techniques	3	0	2	3+2
3.	DSE	MIC501	Cloud Computing /Introduction to Computer Network	3	1	0	4
4.		MIC502	E-commerce and Application	3	1	0	4
5.	SEC	SEC581	Internship to be started after exam of 4 <sup>th</sup> sem (sem break) and completed within 5 <sup>th</sup> sem (weekends)	0	0	4	4
<b>Total Credit</b>							22

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**SEM-6**

Sl.	Subject Type	Code	Subject Name	Credits			Total Credits
				L	T	P	
1.	DSC	<b>BMMIT-6301 &amp; BMMIT-6391</b>	<b>Orthopedics in Radiology</b>	3	0	2	3+2
2.		<b>BMMIT6302 &amp; BMMIT6392</b>	<b>Dental Radiography</b>	3	0	2	3+2
3.		<b>BMMIT-6303</b>	<b>Medical Ethics, Biosafety and IPR</b>	3	1	0	4
4.	DSE	<b>MIC601</b>	<b>Web Development with HTML and CSS</b>	3	1	0	4
5.		<b>MIC602</b>	<b>Internet and Networking /ERP</b>	3	1	0	4
<b>Total Credit</b>							<b>22</b>

**SEM-7**

Sl.	Subject Type	Code	Subject Name	Credits			Total Credits
				L	T	P	
1.	DSC	<b>BMMIT 7401 &amp; BMMIT 7491</b>	<b>Advanced Imaging techniques and recent trends</b>	3	0	2	3+2
2.		<b>BMMIT 7402 &amp; BMMIT 7492</b>	<b>Quality control, Radiobiology, and Radiation safety in Radiodiagnosis and imaging other than x-ray related</b>	3	0	2	3+2
3.		<b>BMMIT 7403</b>	<b>Research Methodology</b>	4	0	0	4
4.	DSE	<b>MIC701</b>	<b>Software Project Management /Introduction To Cyber Security and Cyber Laws</b>	3	1	0	4
5.		<b>MIC702</b>	<b>Digital Marketing/ Data Analysis and Interpretation</b>	3	1	0	4
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**SEM-8**

Sl.	Subject Type	Code	Subject Name	Credits			Total Credits
				L	T	P	
1.	DSC	BMMIT8401 & BMMIT8491	Contrast and special Radiography procedures	3	0	2	3+2
2.		BMMIT8402	Interventional procedures and critical case study	4	1	0	5
4.	SEC	SEC881	Internship & Research Project/ Dissertation	0	0	12	12
<b>Total Credit</b>							22