#### **MANDATORY DISCLOSURES**

Note: The on us of the authenticity of the information lies with the MITRC ONLY and not on AICTE.

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Date & Time period: 16-MAY-2023

#### NAME OF THE INSTITUTION

Name of the Institution : Modern Institute of Technology & Research Centre

Address : VILLAGE-JHARKHERA , 6th Mile Stone, Delhi-Tijara State Highway ,

Sirmoli Road, Alwar, Rajasthan-301028 with

Google Coordinates : : LATITUDE : 27.6342° N, LONGITUDE : 76.6502° E

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### MODERN INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE

**Tehsil: Kishangarh Bas** 

City: Alwar

State: Rajasthan

Telephone Number: 0144-2980851/52

Fax Number: 0144-2980851

Mobile: 9414063671,7597676193

Website: www.mitrc.ac.in

E-Mail:admin@mitrc.ac.in, mitrcindia@gmail.com

Nearest Railway Station & its Distance : Alwar Junction at distance of 10.2

**Kilometers** 

Nearest Bus Stop & its Distance : Chikani and Alwar Bus Stand at distance of 7 Kilometers & 10.2 Kilometers respectively.

Nearest Hospital & Distance: Harish Hospital, Telco Circle Alwar & Rajiv Gandhi District Govt. Hospital at distance of 7 Kilometers & 10.1 Kilometers respectively.

#### **PREFACE**

The Modern Institute of Technology and Research Centre (MITRC) is a premier educational institution that provides technical education to students in our country. MITRC was established with the goal of offering top-notch academic programs, research-based initiatives, technical education, and training in various fields of Science and Technology. The institute has gained global recognition as a leader in science and engineering education.

MITRC is recognized by the All India Council of Technical Education in New Delhi and is affiliated with BTU, Bikaner. The institute follows the curriculum set by Bikaner Technical University. MITRC has laid a strong foundation for education, innovation, and a start-up ecosystem with a vision to foster new ideas and innovations in the minds of students related to technology and science.

Annually, MITRC admits over 325 candidates for undergraduate programs (B.Tech) through the Joint Entrance Examination (JEE), REAP, and Management Quota, as well as more than 70 candidates for postgraduate programs. The institute operates on a credit-based semester scheme, with two semesters in an academic year (Odd Semester: Tentative - July-Dec; Even Semester: Tentative - January-May/June) offering courses specified for various degree programs and additional courses beyond the curriculum.

In addition to the regular semesters, MITRC also conducts a Summer Internship term for summer courses. Students must meet specific academic requirements each semester to earn their degree. This booklet contains detailed information on the Rules and Regulations for the B.Tech Program.

MITRC is dedicated to motivating and providing opportunities for its academic units to align with the Model Curriculum and meet their specific needs. This is done within the framework of the Rules and Regulations set by the Senate of Bikaner Technical University and AICTE. The institute recognizes the importance of staying updated with emerging technologies and

### MODERN INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE

scientific developments, and therefore allows students the freedom to explore topics of their interest.

Starting from the Academic Year 2021, BTU Bikaner has revised its Undergraduate Programmes curriculum. The revised curriculum offers additional opportunities and flexibility for students to meet the needs of society and industries, while optimizing their learning experience.

It is important for all stakeholders, including students and parents/guardians, to familiarize themselves with the academic system of the institute. Students should pay attention to the education delivery process, assessment methods, and the norms governing the Credit Based system and academic performance requirements. MITRC is committed to providing the best opportunities for students to become outstanding scientists and engineers. We have confidence in our academic quality and excellence, and encourage students to utilize the available resources to fully develop their potential in fields such as engineering, science, web design, software development, and social sciences. We wish all our students a bright future and a successful career.

#### VISION

To produce well trained professionals and leaders for serving society and world at large through excellence in academics, research, development and innovations.

#### **MISSION**

- To provide state of the art facility for academic excellence that caters to regional,
   national and global challenges.
- To identify emerging areas of technology that can provide innovative and sustainable solutions to global challenges.
- To provide an environment of industry oriented research and development.
- To inculcate core values of professional ethics, team-work, inter personal skills and life-Long learning for sustainable development of the society.

#### **QUALITY POLICY**

Our primary objective is to offer exceptional educational resources that cater to the needs of students and stakeholders, ensuring utmost satisfaction. We strive to provide a comprehensive curriculum and a wide range of co-curricular activities, all aimed at delivering Outcome Based Education. Our ultimate goal is to enhance and integrate skills that are not only beneficial for the industry but also for society on a global scale. We are committed to preparing our students to successfully meet the demands of society, industries, and researchers.

#### **VALUES**

- Academic Freedom
- Innovation
- Integrity
- Professionalism
- Inclusiveness
- Social Responsibility

#### 1. PROFILE OF THE INSTITUTION

#### **1.1 ABOUT ALWAR**

Alwar, known as the Gateway City of Rajasthan, holds a significant historical background dating back to 1500 BC. Situated amidst the lush green hills of the Aravalli range, this city boasts of ancient palaces and forts that reflect its rich heritage. The region, once known as Matasya Desh, was where the Pandavas sought refuge during their exile from the Mahabharata. Alwar's landscape, with its deep valleys and dense forests, serves as a habitat for diverse wildlife including the Bengal tiger and golden jackal.

The city's architectural marvels, serene lakes, and unique socio-cultural ambiance make it a must-visit destination for travelers seeking a blend of history and natural beauty.

Alwar is also renowned for its delectable cuisine, offering a delightful fusion of Rajasthani and Mughlai flavors. Culinary delights like Kalakand and Milk Cake are must-try delicacies in the city. Visitors can savor local delicacies such as dal bati churma, gatte ki sabzi, and mawa sweets at various eateries and restaurants. Furthermore, Alwar is known for its handicrafts and artisans, with places like Shahjahan Market and Kumhar Mohalla offering exquisite handcrafted items that showcase the city's artistic heritage. Serving as the gateway city of Rajasthan and known as the City of Parks, Alwar takes great pride in its rich heritage and culture.

#### **Climate and Tourism in Alwar**

Alwar's climate is dominated by extremes of temperature and relatively low precipitation, with distinct seasons offering varying experiences for visitors throughout the year. The monsoon season in Alwar typically spans from July to September. During this time, the region receives moderate to heavy rainfall, which helps alleviate the heat and brings relief to the parched land. Alwar boasts several unique attractions that make it a special and appealing destination. glimpse into what makes tourism in Alwar so appealing: The city is adorned with historical forts and palaces, such as Bala Quilla with its towering structure, Rajgarh Fort, and City Palace, which showcases a stunning blend of Rajput and Mughal architectural styles. The Sariska Tiger Reserve, a major draw for visitors, is home to a diverse range of wildlife, including tigers, leopards, hyenas, and various species of birds. Additionally, the haunted Bhangarh Fort, Narayani Mata, Pandupol, Bhrat Hari, Siliserh Lake, Moosi Maharani ki Chatri, and Fateh Jung Gumbad are all captivating attractions in Alwar.

#### **Education in Alwar**

When it comes to education, Alwar is home to numerous schools, colleges, and universities that offer a wide range of academic programs. Notable institutions include Alwar Public School, Shri Oswal Jain Senior Secondary School, St. Anselm's Senior Secondary School, Kendriya Vidyalaya, Adinath Public School, Knowledge City School, Chinar Public School, Lords International School, Sri Guru Harkrishan Public School, Step By Step Senior Secondary School, Raath International School, National Academy, Silver Oak, and colleges such as Raj Rishi College, Government Law College, KCRI College, MITRC, LIET, Modulus, CLC, Career Point, Engineer Point, Allen, NIET, IET

College, and Matasya University. These educational institutions are known for providing quality education, excellent academic programs, and a conducive environment with top-notch infrastructure to facilitate the holistic development of students.

#### **Jobs Opportunities in Alwar:**

Alwar is situated in the National Capital region, strategically positioned between the Capital of India, Delhi, and the Capital of Rajasthan, Jaipur. The Tehsils of Alwar, such as Bhiwadi, Neemrana, and Tapukara, serve as major Industry Hubs in Rajasthan, hosting numerous MNCs. Neemrana, known as Japani Zone, houses significant Japanese Industries specializing in core branches like Electrical and Mechanical, with over 450 Industries established there. Alwar District boasts major industries like Daikin, Hitachi Astemo, Mikuni, Havells India Pvt. Ltd., Tokai Rubber, Hero Motors, Roca Group, Kajaria Tiles, MSME, and Hero Moto Corp. This abundance of industries translates to ample job opportunities for individuals with a clear career path. Companies like Console Bit and IMG Global Infotech are actively recruiting Computer Science Engineering graduates in the area. Moreover, students in Alwar can explore job prospects in Gurugram (Gurgaon), Manesar, Kushkhera, Daruhera, Delhi, and Noida.

#### 1.2 ABOUT MITRC:

#### **Welcome To**

#### Modern Institute Of Technology & Research Centre, Alwar (Raj.)

#### (Approved By AICTE and Affiliated to B.T.U.)

We at MITRC, Alwar add another feather in the already colorful cap of Alwar, Rajasthan. Since its inception in 2007, Modern Institute of Technology & Research Centre (An Engineering and Management College), Alwar has been known to enable students to carve a niche for themselves and develop a strong personality. Ranked as one of the best private engineering and management colleges of Alwar, Rajasthan it is located in the serene lap of the Aravali Hills on Alwar-Delhi-Tijara Highway.

MITRC, Alwar boasts cutting-edge infrastructure that aids students in grasping the intricacies of their chosen engineering field. Engineering serves as the bridge between scientific breakthroughs and practical solutions that enhance the lives of people. Virtually every aspect of our daily routines, whether work-related, personal, or recreational, has been influenced by the field of Engineering.

MITRC, Alwar is a magnet for aspiring engineers and management students seeking undergraduate and postgraduate degrees such as B.Tech, M.Tech, and MBA. The institution's alumni excel in diverse domains, leveraging their expertise to contribute to industry, academia, research, and beyond. The college offers unique internships and training programs focusing on cutting-edge technologies.

Students have garnered prestigious accolades like Gold Medals in academics, recognition for merit, victories in the Smart India Hackathon Grand Finale, and triumphs in various state and national-level technical competitions. Situated in the National Capital Region, the campus seamlessly blends urban convenience with the natural allure of the Aravali Hills, providing a holistic residential experience complete with hostels, dining facilities, sports amenities, and recreational options.

What sets MITRC apart from other institutions in Alwar is its commitment to academic excellence, distinguished faculty, industry collaborations, research prospects, modern amenities, alumni accomplishments, robust infrastructure, industry linkages, placement prospects, disciplined ambiance, active participation in national and state-level technical

contests, merit-based recognitions, GATE exam selections, and overall student satisfaction. MITRC stands out as the premier engineering college in Alwar, offering Outcome-Based Education and exceptional placement opportunities that position it as a formidable contender among the Best Engineering Colleges in Jaipur / Best Engineering Colleges in Rajasthan/ Best Engineering Colleges in India .

#### 1.2 MANAGEMENT COMMITTEE:

The management of the institution is overseen by the **All India Arya Samajis Society for Advance Education & Research Society.** This esteemed organization is comprised of individuals with visionary perspectives, successful industrialists, highly qualified and experienced educationists, all of whom are ably supported by the members of the Governing Council.

#### 1.3 INFRASTRUCTURE

Each Division/department fosters a harmonious and exceptional academic atmosphere to promote high-quality education and achieve outcome-based results in the domains of technical, science, engineering, and technology. Every department is equipped with all the necessary resources, amenities, instructional tools, state-of-the-art laboratories, and experienced, highly qualified faculty members.

The essential facilities provided include:

- 1. Well-equipped classrooms with projectors.
- 2. A centralized library with Delnet facility.
- 3. Departmental offices for administrative purposes.
- 4. Modern sports facilities for recreational activities.
- 5. An air-conditioned auditorium for events and performances.
- 6. Air-conditioned seminar halls for conferences and seminars.
- 7. A clinic for medical assistance.
- 8. Hostels for both boys and girls.
- 9. Cafeteria and canteen for dining options.
- 10. Indoor and outdoor gym for fitness enthusiasts.
- 11. Transport facilities available from various Tehsils of Alwar and all parts of the city.

#### **1.3.1 LIBRARY**

When in Doubt, Go to the Library"

According to Einstein: "The only thing you absolutely have to know is the location of the library."

The library at the academic institution serves as a reflection of the institution's academic values. It is the core and essence of the institution. The MITRC Library, which is fully computerized, offers a wide range of academic resources for students, faculty, and administrative staff. The library is dedicated to ensuring that these resources are easily accessible whenever and wherever they are needed, in order to enhance and support the overall growth and development of the students

The MITRC takes great pride in its fully computerized library, which is equipped with top-notch software such as Alice for Windows 6.0 version and Delnet. The library houses an extensive collection of over 50,000 books, covering the latest editions in various engineering disciplines and applied sciences. Furthermore, it offers more than 5,000 CDs/DVDs (E-Books), ensuring a diverse range of resources. The library also subscribes to over 60 international magazines, 40 national magazines, and 8 newspapers, providing students with access to a wealth of information. Additionally, the library is equipped with a photocopying machine and has a seating capacity of over 300 students.

#### Salient Features:

- A huge collection of over 50000 books of latest edition on diverse engineering streams and applied science.
- More than 500 (E-Books).
- Regular Subscription of over 1. 60 International magazines
- 40 National magazines
- 08 All Reputed newspapers.
- Photo-copying Machine.

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- Seating capacity of more than 300 students.
- Latest Journals
- Digital Learning from DELNET

#### **Collections:**

Books, Journals/Periodicals, Bound Volumes, Technical/general magazines, Non-Book materials, Notes, News Papers, Question Papers, Syllabus, Project Reports, E–Journals, E– Books and many more electronic resources.

#### **Services:**

- Book Bank Services
- Circulation Service
- NPTEL Service Online
- MOOC Courses
- E-Kumbh Books from Portal issued by AICTE
- Digital Library Service
- Document scanning
- Document Printing OPAC (Online Public Access Catalogue)
- News paper clippings
- Online Lectures
- Online Management

#### **Library Instructions:**

- Please present your identity card at the checkpoint.
- Kindly leave your bags, handbags, and personal belongings outside the Library.
- Students are not allowed to bring any notebook inside the reference section except loose sheets.
- It is strictly prohibited to write on, damage, or make any mark on any book, journal,
   or other material belonging to the library.
- Handle books with care as any damage will result in heavy fines.
- Students can keep the books for a maximum of two weeks, after which a fine of Rs.1/- per book per day (Rs.2/- after 15 days) will be imposed.
- Each student can borrow up to three books at a time.
- Renewals are permitted only if there are no pending claims by others.

### MODERN INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE

- Phone renewals will not be accepted.
- If a borrowed book is recalled by the Librarian, it must be returned immediately.
- All books from the Book Bank Service must be returned within 5 days from the end of the Semester Exam.
- Library books will only be provided once all dues are cleared. Please maintain a queue at the circulation counter.
- It is mandatory to wear your ID-Card and carry your Library Card.
- The use of mobile phones is not allowed.

#### 1.3.2 LABORATORIES

The laboratories in every department of MITRC are equipped with modern and well-furnished facilities, along with all the necessary teaching aids.

DEPARTMENT	LAB NAME	MAJOR EQUIPMENTS
	C Programming Lab	
	<b>Object Oriented Programming Using</b>	
	C++ Lab	
	Java Programming Lab	
	Python Programming lab	More than 700 Computers of
	<b>Mobile Application Development Lab</b>	HCL, Wipro with Good
	Internet of Things Lab	Configuration and Internet
	Digital Image Processing Lab	Facility with Projector and
	Compiler Design Lab	Audio System
CSE	Analysis Algorithm Lab	
	Microprocessor & Interface Lab	
	Digital Electronics Lab	
	Database Management Lab	
	Linux & Shell Programming Lab	
	Data Structures and Algorithms Lab	
	Machine Learning Lab	
	Advance Java Lab	
	Computer Graphics Lab	
	Big Data Analytics Lab	
	Cyber Security Lab	
	Software Testing and Validation Lab	
	Computer Centre	
	Network Programming Lab	
	Neural Network Lab	
	Analysis of Algorithms Lab	
	Machine Learning Lab	
	Data Mining & Predicting Modeling Lab	
	Soft Computing Lab	
	Mobile Application Development Lab	

#### **MANDATORY DISCLOSURE**

_	T	
	C Programming Lab	
	Object Oriented Programming Using	
	C++ Lab	
AI & DS	Java Programming Lab	
	Python Programming lab	
	R Programming Lab	
	Data Handling & Visualization Lab	
	Network Programming Lab	
	Neural Network Lab	
	Analysis of Algorithms Lab	
	Data Foundation Lab	
	Machine Learning Lab	
	Data Mining & Predicting Modeling Lab	
	Soft Computing Lab	
AI & ML	Mobile Application Development Lab	
	C Programming Lab	
	Object Oriented Programming Using	$\neg$
	C++ Lab	
	Java Programming Lab	
	Python Programming Lab	
	R Programming Lab	
	Data Handling & Visualization Lab	
	FEA LAB	
	THERMAL ENGINEERING LAB-II	
	QUALITY CONTROL LAB	
	Industrial Engineering Lab	
	Meterology Lab	
	Machine Drawing Practice	
	Production Practice Lab	
	Materials Testing Lab	
	Theory of Machines Lab	
	Fluid Mechanics Lab	
	Sci Lab Programming	CNC Machine, UTM Machine,
	Mechatronic Lab	Lathe Machine, Welding
MECHANICAL	Heat Transfer Lab	Machine, Pelton Turbine,
	Production Engineering Lab	Diesel Engine Model, Petrol
	Machine Design Practice I	Engine Model, Manufacturing
	CIMS Lab and Automation Lab	Tools, Hydraulic Flume,
	Vibration Lab	Hydraulic Brake, AUTO
	Machine Design Practice II	CAD,CAD PRO Software
	Thermal Engineering Lab	
	Power System – Lab	
	Control System Lab	
	Microprocessor Lab	Electrical Machines,
	System Programming Lab	Synchronous Motor,
	Electric Drives Lab	Transformer, Inverter, AC-DC
	Power System Protection Lab	Convertor, Power Electronic
	Modelling and Simulation lab	Device Charecteristics Curve,
	Electrical Machines Lab	Transmission Line Trainer
	Licetifed Hidefilles Lab	

#### **MANDATORY DISCLOSURE**

	Electrical Measurement and Instrumentation Lab	Model, Transmission Line			
	Analog Electronics Lab	Parameters ,Passive			
	Electrical Circuit Lab	Components, Alternator,			
	Power System Design Lab	Generator, Solar Plant,			
ELECTRICAL	Electrical Machine Design Lab	CRO,Basic Tools like Cutter,			
	Embedded Systems Lab	Clipper, Multi Meter, Clamping			
	Advance control system lab	Tool, Tachometer, Function			
	Energy Systems Lab	Generator with Safety by			
		Rubber.			
	Project Planning & Construction Management Lab				
	Pavement Design	_			
	Road Material Testing Lab	_			
	Soft Skills Lab	<u>_</u>			
	Fluid Mechanics Lab	<u>_</u>			
	Surveying Lab				
	Computer Aided Civil Engineering Drawing	Theodolite, Turbidity Testing,			
	Geology Lab	Auto Level, Dumpy Level, UTM,			
	Civil Engineering Lab	CTM, Surveying Instruments,			
CD (III	Environmental Engineering Lab	Total Station, Road Material			
CIVIL	Hydraulics Engineering Lab	Testing ,CAD Software			
	Transportation Engineering Lab				
	Geotechnical Engineering Lab				
	Quantity Surveying and Valuation				
	Steel Structure Design				
	Water and Earth Retaining Structures Design				
	Environmental Engineering Design and Lab				
	Physics Lab	Newton's Ring, Michelson			
	Chemistry Lab	Interferometer, Hall Effect,			
APPLIED	Basic Electrical and Electronics Lab	Water Treatment, Cloud and			
SCIENCE	Engineering Drawing Lab	Pour Point, Viscosity Meter,			
	Communication Skill Lab	House Wiring, Basic			
	Computer Programming Lab	Instruments, Lathe, Welding,			
		Foundry, Milling, Shaping,			

#### **1.3.3 HOSTEL**

MITRC Alwar caters to the growing demands of today by providing all the necessary facilities. The college has separate hostels for boys and girls, with appointed wardens on each floor to ensure the safety and security of the students. The boys' hostel can accommodate 190 students, while the girls' hostel can accommodate 100 students. Both hostels are situated within the college campus, surrounded by the serene Aravalli Hills. One of the key features of the hostels is the pollution-free environment they offer. Strict measures are in place to prevent boys from entering the girls' hostel. The hostel environment is friendly and welcoming, as ragging is strictly prohibited and seniors extend their support to the freshers. Additionally,

there are external faculty members who not only motivate the students but also act as local guardians, creating a homely atmosphere in the hostels.

#### Infrastructure Facilities:

- 1. Purified RO drinking water is accessible around the clock via water coolers.
- 2. Continuous power supply is ensured with electricity available 24\*7, backed up by a 125KVA generator in case of mains power failure.
- 3. The hostel is equipped with solar panels for sustainable energy.
- 4. Each room is equipped with its own attached washroom for convenience.
- 5. Internet access is provided throughout the hostel area via Wi-Fi access points connected through BSNL ISP's optical fiber network.
- 6. Accommodation facilities are available for parents or guardians visiting the hostel.
- 7. The hostel premises are cleaned daily using toilet and floor cleaners.
- 8. Regular spray of insecticides is carried out.
- 9. We offer a wide range of sports facilities including cricket, football, volleyball, tennis, carrom, chess, and more. Additionally, we provide a fully equipped gym facility with all the necessary equipment.

#### **Medical Facilities:**

- The doctor visits twice a week for routine check-ups.
- First aid is provided to preserve life, prevent additional harm, and aid in recovery.
- A 24/7 ambulance service is available for critical cases requiring transportation to the city hospital.
- The college has a dispensary on campus that stocks all necessary medications around the clock.
- Antibiotics and a first aid kit can be found in the Warden Room/HR Department for emergencies.

#### **Catering Facilities:**

- Hygienic food under the supervision of experts.
- Variety of eatables in 4-courses (breakfast, lunch, refreshment, dinner).
- Cleanliness is always kept into consideration.

• Timings are feasible according to the students.

#### **Entertainment/Celebration:**

- Indoor /Outdoor games like Volleyball, Cricket, Football, Table Tennis, Lawn Tennis,
   Basket Ball, Badminton, Carom, Chess etc
- Mini functions like Jagran, Festivals Celebration, B'day blasts etc
- Mess equipped with LED & DTH
- Each Saturday , Inspirational & Motivation Movie Show

#### **Security:**

- Guard is available in both Boys & Girls hostel for 24x7
- CCTV cameras are installed in Corridor for Surveillance for monitoring the activity to prevent chaos in Hostel
- CCTV Recording Facility is also available.

#### **Inventory Provided To Inmate:**

- Bed
- LED / Tube Light
- Book Shelf
- Chair
- Table
- Almirah
- Cooler
- Fan

#### Students have to bring their own:

- Bedsheets
- Blanket
- Pillow
- Bucket
- Other Useful Accessories

#### 1.3.4 CONVEYANCE

MITRC Alwar operates its own fleet of buses that adhere to government regulations and are operated by trained and skilled drivers. Our bus network covers all nearby neighborhoods, including local communities and townships such as City, Rajgarh, Tijara, Khairthal, Ramgarh, Govindgarh, Bhiwadi, Tapukra, Kishangarh, Malakhera, Dhighawara, Burja Surya Nagar, Telco Circle, Ashoka Talkies, Malviya Nagar, Bus Stand, Nangali Circle, Kali Mori, Scheme No. 2, Scheme No. 3, Scheme No. 4, Scheme No. 5, Scheme No. 6, Scheme No. 8, Scheme No. 10, Vijay Mandir, Shivaji Park, Hasan Khan Mewat, Ambedkar Circle, Hanuman Circle, Mungaska, Railway Station, Alwar Junction, CP Mall, and more. Our bus service ensures the safe and secure transportation of our students, with designated pick-up and drop-off timings and stops. This service is specifically designed to cater to the needs of our engineering and management students, as well as staff members residing outside the MITRC Alwar campus. It prioritizes their personal safety, travel reliability, and punctuality on campus. Additionally, our transport facility is utilized for various educational purposes, including field trips, industrial visits, campus placement drives, study tours, and NSS programs.

#### 1.3.5 **MESS**

The college's mess facility, managed by MITRC Mess Employees, plays a crucial role in providing wholesome, high-quality, nutritious, and homely food to all hostlers, faculty, and staff members of MITRC Alwar. Our main objective is to offer healthy and delicious meals to everyone, regardless of the time or place.

We strongly believe that serving food with warmth and the right attitude can create a lasting impact on those being served. Our top priority is to uphold a standard operating procedure that is consistently implemented across all locations, with a strong emphasis on adhering to food safety protocols and complying with all legal requirements.

The mess exclusively serves vegetarian food and operates in a self-service format. The menu is carefully crafted to meet the students' needs, ensuring that it is both nutritious and well-rounded. Living in the hostel fosters a sense of unity among the students. The mess accommodates the diverse tastes and culinary preferences of students from different regions. The menu is developed and overseen by the management in collaboration with the students.

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#### **Mess Timing:**

Tea: 7:00-8:00 A.M

Breakfast: 08:00 – 08:55 A.M

Lunch: 12:15 – 14:00 P.M

Tea & Snacks: 16:00 – 17:30 P.M

Dinner: 19:00 – 20:00 P.M

#### **Mess Food Varieties:**

• BREAKFAST: Our breakfast menu offers a wide range of options to satisfy your taste buds. You can choose from delicious Parathas such as Aloo Paratha, Palak Paratha, Gobhi Paratha, Chuttney-Paratha, and Stuff Paratha. We also serve Milk, Upma, Sandwich, Poha, and Halwa-Chana to ensure a fulfilling start to your day.

• **LUNCH:** For lunch, we provide a balanced meal consisting of Chappati, Seasonable Vegetable, Pulses/Daal, Rice, Curd/Rayata, Salad, and Pickle(Aachar). This combination ensures a nutritious and satisfying lunch experience.

• TEA & SNACKS: In between meals, we offer a variety of options for tea and snacks. You can enjoy a refreshing cup of Tea or opt for Rasna (Sometimes in Summer) or Lemon Water (Sometimes in Summer) for a fruity twist. Accompany your beverage with Biscuits & Namkeen, Samosa, Kachori, Pav-Bhaji, Idali-Sambhar, Utpam, Dahi-Balle, Fried Rice, or Kofta for a delightful snacking experience.

• **DINNER:** Our dinner menu mirrors the lunch menu, providing you with Chappati, Seasonable Vegetable, Pulses/Daal, Rice, Curd/Rayata, Salad, and Pickle(Aachar). This ensures consistency and a well-rounded meal to end your day on a satisfying note.

SPECIAL DIET ON SUNDAY: On Sundays, we offer a special diet that includes Paneer,
 Pulses/Daal, Rice, Curd/Rayata, Salad, Pickle(Aachar), and Sweets. This special menu
 adds a touch of indulgence to your Sunday dining experience.

#### **1.3.6 CANTEEN**

Aptly said- "A healthy mind lives in a healthy body"

With this in mind, we embrace the pursuit of a wholesome lifestyle. Our canteen offers an abundance of flavors that will surely satisfy your taste buds, making you feel right at home. Whether you crave Desi Tadka (Indian), Chinese, South Indian, Italian cuisine, snacks, or beverages, our canteen has it all. Conveniently situated within the College, you can always indulge in a delightful culinary experience.

#### **Highlights of Canteen:**

- Food is meticulously prepared with a focus on health and hygiene standards.
- All delicious treats are priced affordably to ensure everyone can enjoy.
- Ready-to-eat meals come with fresh dates exclusively.
- Spacious and inviting environment where students can unwind from a day of studying with themed music.
- Flexible opening and closing hours cater to students living on campus, providing a homely feel.
- The canteen is managed directly by the College Administration.
- The menu will be curated by the designated management team, with instructions provided to the contractor.
- The canteen contract will be renewed annually. Regular meetings will be held by the management team and contractor to improve canteen operations.
- Feedback from food consumers is valued, including suggestions, complaints, and issues.

#### 1.3.7 GYMANISUM

MITRC Alwar provides its students with a comprehensive gymnasium that is equipped with state-of-the-art facilities to ensure the fitness and well-being of the students. In the

evenings, the campus becomes vibrant as hundreds of students residing in the hostels engage in various sports activities, both as players and spectators. However, please note that the gymnasium will be temporarily closed at specific times for cleaning purposes.

#### **Major Fitness Machines & Equipments:**

The gym at MITRC Alwar boasts lifting racks, benches, and weights; lifting mats with Olympic bars and rubber bumper plates; a full set of dumbbells (ranging from 2.5kg to 50kg); a dip machine; a glute-ham raise machine; swiss balls, and stretching mats. It also houses aerobic equipment including Concept II ergometers, treadmills, cross trainers (elliptical machines), exercise bikes, stair-master, versa-climber, and a multi-gym for upper body exercises.

#### **Timing:**

The morning time frame is between 5:00 AM and 8:00 AM, and the evening time frame is between 4:00 PM and 7:00 PM.

#### 1.3.8 MEDICAL FACILITIES

Health is an invaluable asset, as a sound body leads to a sharp mind. By instilling the importance of well-being, we aim to create a nurturing environment for students on campus. The nearest hospital is located 4 km away, while the government hospital is 10 km away. In case of emergencies, transportation services are readily available.

MITRC Alwar boasts its own dispensary with a qualified doctor and pharmacist to cater to the health needs of students and staff. First-aid kits are strategically placed in key areas such as hostels, workshops, and buses to address any urgent medical situations.

#### 1.3.9 SEMINAR HALL

In the current scenario, extensive research is being conducted. In order to discuss these research findings, technical aspects, and to enhance the skills of both faculty and students, various activities such as seminars, conferences, and faculty development programs (FDP) are

### MODERN INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE

organized. With this in mind, MITRC Alwar has a state-of-the-art auditorium, seminar halls, and a conference room, collectively accommodating more than 300 individuals.

The auditorium is spacious, well-ventilated, and furnished with air conditioning. It serves as a regular venue for conferences, workshops, and seminars, providing all the necessary facilities to enrich the learning experience. This vast space caters to the diverse requirements of delivering quality education.

#### 1.3.10 OTHER FACILITIES

Internet Connection : 5 Connection of 100 Mbps

Class Rooms: As per Norms of AICTE

• Labs : As per Norms of AICTE.

• Printers : As Per Norms of AICTE.

• PCs: As per Norms of AICTE.

• Wi Fi Routers: Whole Campus is Wi-Fi Enabled with Security.

#### 1.3.11 TRAINING AND PLACEMENT CELL

The TPO department is led by a TPO Incharge. The primary objective of this department includes organizing the CRT (Campus Recruitment Training) Program, improving soft skills, enhancing interview skills, providing personal grooming and personality development, arranging industrial visits and other related activities, facilitating in-plant training, conducting in-house training, establishing MOUs with industries, offering internships, and coordinating campus interviews for graduating students with various industries.

#### **Modules of CRT Program:**

- Quantitative Skills
- Logical reasoning
- Comprehension
- Verbal reasoning
- Data Interpretation

- Data Sufficiency
- Resume Writing
- Group Discussion
- Personal Interview
- Mock Tests

Organizing / arranging for summer Internship, Final Placement for the students and also conducting Entrepreneur development programmes.

#### 1.3.12 CULTURAL, SPORTS AND RECREATION FACILITIES

The college offers exceptional sports facilities and a wide range of recreational activities. Outdoor games such as Cricket, Basketball, Volleyball, Kabaddi, and Tennis are available, as well as indoor games like Carrom and Chess. Additionally, LAN Gaming is also provided for the students' enjoyment.

In terms of co-curricular activities, the students organize Fresher: **AARAMBH** and Farewell: **DESPEDIA** events. These events provide a platform for students to showcase their hidden talents. Moreover, the students of MITRC organize the Annual Function: Invincible, which further allows students to explore and display their skills.

Furthermore, students are encouraged to participate in various activities such as Rangoli Making, Model Exhibition, Circuit Maker, Programming Contest, Inter-collegiate Cultural and Technical fests. The participants receive necessary guidance and support to excel in these events.

These activities play a vital role in the holistic development of the students' personalities. The students have also actively participated in numerous State Level and National Competitions, including Chatra Vishwakarma Award, Toycathon, Codethon, Samadhan, Smart India Hackathon, Shankara Hackathon, Hackers Earth Challenge, Devpost Hackathon, Vigyan Mahotsav, and NASA Space App Challenge.

#### 1.3.14 INDUSTRY INSTITUTE INTERACTION CELL

### MODERN INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE

To cope up with demands of industry, MITRC IIC Cell signed MOUs with Various Industries to provide opportunity to the students for Internships, Graduate Engineer Trainee etc.

Some of the Industries to which MOUs signed by MITRC are

- Console Bit
- MSME
- CETPA
- METSO
- Havells India Pvt Ltd
- IMG Global Infotech
- Mobilicy

#### 2 ACADEMICS

#### 2.1 RECOGNITION

#### **2.1.1 APPROVAL:**

MITRC holds the top position among Alwar's private engineering colleges and enjoys a prestigious reputation in Rajasthan. It is widely recognized as the finest engineering college in Alwar, receiving positive reviews and high student satisfaction. MITRC reflects as one of the best institute of engineering and technology in Alwar. It's feature of delivering outcome based education and discipline with student satisfaction make it best college and top ranked college among top engineering college or top institutes in Alwar. MITRC plays a significant role in the education sector, particularly in the field of technical education in Rajasthan. Additionally, MITRC is approved by the All India Council of Technical Education (AICTE), New Delhi, and adheres to all the mandatory disclosure criteria and norms set by AICTE's Approval Process Handbook.

Name of Institute: Modern Institute of technology and Research Centre

**AICTE Region: North West Region-Head Office in Chandigarh** 

Permanent Id: 1-4331903

Admin E Mail Id: mitrindia@gmail.com, admin@mitrc.ac.in

Website: www.mitrc.ac.in

**IIC Approved: Yes** 

### MODERN INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE

AISHE Code: C-25248

IIC ID: IC201912078

AICTE Website: www.aicteindia.org

**AICTE Chairman: Professor T.G Sitaraman** 

**AICTE Vice Chairman: Dr. Abhay Jere** 

Advisor-II: Dr. Ravindra Kumar Soni

#### 2.1.2 AFFILIATION:

MITRC is affiliated by the Bikaner Technical University, Bikaner.

https://btu.ac.in/home/List-Affiliated-College-for-2018-1928

University Website: <a href="https://btu.ac.in/">https://btu.ac.in/</a>

Type of University : Public/Government

University Address: Bikaner Technical University, University College of Engineering & Technology

Campus, RIICO Karni Industrial Area, Pugal Road, Bikaner -334004

**University Contact Number**: 0151-2250940,50

**University Fax Number**: 0151-2250940,50

Mail Id: reg@btu.rajasthan.gov.in

Note: Old Batches are Approved by Rajasthan Technical University, Kota.

#### 2.2 ACADEMIC CALENDAR

The Academic Calendar approved by the Senate( Bikaner Technical University, Bikaner ) regulates the academic activities at MITRC Institute. This calendar is released at the commencement of each semester of the academic year. You can find the Academic Calendar at:

Link for Academic Calendar is: https://btu.ac.in/home/Academic-Calendar27

#### 3. PROGRAMS OFFERED

Keeping all perspective of career of students and to cope up with all demands of industries and society and various stakeholders like Alumini, Parents ,Students, Researchers, Innovators, we offered following programs –

**Total UG Programs Approved by AICTE:08** 

Name of Program	Progra m Type	Intak e	Duratio n	Course	Discipline
Bachelor of Technology in Artificial Intelligence & Data Science (UG)	UG	60	4 Years	Degree Course- Education	Data Science- Discipline
Bachelor of Technology Artificial Intelligence & Machine Learning (UG)	UG	60	4 Years	Degree Course- Education	Artificial Intelligence- Discipline
Bachelor of Technology in Computer Science Engineering (UG)	UG	120	4 Years	Degree Course- Education	Computer Engineering- Discipline
Bachelor of Technology in Civil Engineering (UG)	UG	90	4 Years	Degree Course- Education	Civil Engineering- Discipline
Bachelor of Technology in Electrical Engineering (UG)	UG	30	4 Years	Degree Course- Education	Electrical Engineering- Discipline
Bachelor of Technology in Mechanical Engineering (UG)	UG	30	4 Years	Degree Course- Education	Mechanical Engineering- Discipline

#### **3.1 PROFESSIONAL SOCIETIES**

Professional societies active in the campus include ISTE, IEEE, CSI, SAE, CSI, NITTR, CDAC, etc.

#### 3.2 NOMENCLATURE OF PROGRAM

The nomenclatures and their abbreviations given below, are followed as per the issued by the University.

**UG LEVEL**: Bachelor of Technology (B.Tech.), B.Tech(Hon's) in all disciplines/branches of Engineering . Besides, the branch or discipline subject of specialization, if any, shall be indicated in brackets after the abbreviation; e.g. B.Tech.(Electrical Engineering), B.Tech (Computer Science and Engineering)

#### **3.3 DURATION OF PROGRAM**

The duration of fulltime academic program decided by the AICTE and University, i.e., four years for B.Tech.

CNO	ENITOV COLIENAE	DDOCDANA	DURATIO	N (YEARS)	
S.NO	ENTRY SCHEME PROGRAM		MINIMUM	MAXIMUM	
1	В.ТЕСН	Bachelor of Technology in Artificial Intelligence & Data Science (UG)	4	8	
2	В.ТЕСН	Bachelor of Technology Artificial Intelligence & Machine Learning (UG)	4	8	
3	в.тесн	Bachelor of Technology in Computer Science Engineering (UG)	4	8	
4	В.ТЕСН	Bachelor of Technology in Civil Engineering (UG)	4	8	
5	В.ТЕСН	Bachelor of Technology in Electrical Engineering (UG)	4	8	
6	В.ТЕСН	Bachelor of Technology in Mechanical Engineering (UG)	4	8	

### MODERN INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE

7	B.TECH (LATERAL ENTRY)	Bachelor of Technology in Artificial Intelligence & Data Science (UG)	3	6
8	B.TECH (LATERAL ENTRY)	Bachelor of Technology Artificial Intelligence & Machine Learning (UG)	3	6
9	B.TECH (LATERAL ENTRY)	Bachelor of Technology in Computer Science Engineering (UG)	3	6
10	B.TECH (LATERAL ENTRY)	Bachelor of Technology in Civil Engineering (UG)	3	6
11	B.TECH (LATERAL ENTRY)	Bachelor of Technology in Electrical Engineering (UG)	3	6
12	B.TECH (LATERAL ENTRY)	Bachelor of Technology in Mechanical Engineering (UG)	3	6

#### 3.4 ADMISSION

#### **Eligibility For B.Tech:**

The minimum academic qualification for admission in B.E. /B.Tech. program in Rajasthan is, Passed class 10+2 (12th ) examinations with Physics and Mathematics / Chemistry/ Computer Science/ Electronics/ Information Technology/ Biology/ Informatics Practices/ Biotechnology/ Technical Vocational subject/ Agriculture/ Engineering Graphics/ Business Studies/ Entrepreneurship.(Any of the three) Obtained at least 45% marks (40% marks in case of candidates belonging to reserved category SC/ ST/ Non creamy layer OBC/ Non creamy layer MBC and PwD category of Rajasthan State) in the above subjects taken together in the final examination of Board of Secondary Education, Rajasthan(RBSE) or Central Board of Secondary Education (CBSE) or any other examination recognized and equivalent thereto by Board of Secondary Education, Rajasthan/Central Board of Secondary Education (CBSE).

#### **Admission Process:**

### MODERN INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE

15% for JEE Mains/Advance Students , 70% through Rajasthan Engineering Admission Counselling Process on basis of Merit Rank and 15% through Direct Admission –Management Qouta

CEG REAP is a state-level admission procedure conducted for students who wish to get admitted into the list of engineering institutes in Rajasthan.

The REAP is a state-level Engineering Online Counselling cum admission process conducted by the Centre for Electronic Governance, Rajasthan.

Merit List prepared on the basis of JEE Mains Score Card, Result of Class XII Science- PCM Marks and Overall Marks released by BSER(Board of Secondary Education) and other State Boards, CBSE Board, ICSE Board, and Other State Board.

#### **Documents Required At The Time Of Admission:**

- Xth Standard Mark sheet
- Xth Certificate
- XIIth Standard Mark sheet (For Admission in 1st Year)
- Diploma Certificate (for Lateral Entry only)
- Domicile Certificate
- Income Certificate
- Caste Certificate (Not Older than 6 Months-If Any)
- EWS Certificate(If Any)
- Medical certificate
- Transfer Certificate (TC)
- Character Certificate(CC)
- Migration Certificate
- JEE Mains Score Card (If Any)
- UIDAI Card/Aadhar Card Copy/E Aadhar

#### **Leep Admission Process:**

### MODERN INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE

LEEP Admission /Lateral Entry Admission has been conducting through online counseling process (other than PMSSS seats) for admission in 2nd year B.Tech. course by Diploma-Degree Students on the basis of polytechnic diploma and/or B.Sc. exam marks merit.

Passed Diploma examination (3 years) with at least 45% marks (40% marks in case of candidate belonging to reserved category- SC, ST, Non Creamy layer OBC, Non Creamy layer MBC and PwD) in any branch of Engineering and Technology from AICTE approved Institution/ UGC Approved Universities.

For Management Qouta , Cut Off Marks is decided on the basis of Cut Off List for B.Sc or Diploma released by Department of Education or HTE, Rajasthan .

Every Year Department of Education released Cut Off List for B.Sc in Raj Rishi College, Government PG College etc

Name of Program	Eligibility	Entry
B.Tech in Artificial Intelligence & Data Science (UG)	Diploma/B.SC in any Discipline from Engineering and Technology from AICTE approved Institution/ UGC Approved Universities with Minimum Marks Criteria	In 2nd Year of Bachelor of Technology Program
B.Tech in Artificial Intelligence & Machine Learning (UG)	Diploma/B.SC in any Discipline from Engineering and Technology from AICTE approved Institution/ UGC Approved Universities with Minimum Marks Criteria	In 2nd Year of Bachelor of Technology Program
B.Tech in Computer Science Engineering (UG)	Diploma/B.SC in any Discipline from Engineering and Technology from AICTE approved Institution/ UGC Approved Universities with Minimum Marks Criteria	In 2nd Year of Bachelor of Technology Program
B.Tech in Civil Engineering (UG)	Diploma/B.SC in any Discipline from Engineering and Technology from AICTE approved Institution/ UGC Approved Universities with Minimum Marks Criteria	In 2nd Year of Bachelor of Technology Program
B.Tech in Electrical Engineering (UG)	Diploma/B.SC in any Discipline from Engineering and Technology from AICTE approved Institution/ UGC Approved Universities with Minimum Marks Criteria	In 2nd Year of Bachelor of Technology Program
B.Tech in Mechanical Engineering (UG)	Diploma/B.SC in any Discipline from Engineering and Technology from AICTE approved Institution/ UGC Approved Universities with Minimum Marks Criteria	In 2nd Year of Bachelor of Technology Program

#### **ADMISSION FOR KASHMIR STUDENTS**

AICTE conduct Online Counselling Process for Admissions of J&K and Ladakh Students under PMSS (Prime Minister Special Scholarship )Programme

#### **Eligibility Criteria:**

- 1. Domicile: Must be a domicile of UTs of Jammu & Kashmir and Ladakh.
- **2. Education**: HSC Must have passed 10+2 examination in academic session 2023-24 & 2024-25 only from J&K BOSE only or CBSE schools located in UTs of Jammu & Kashmir and Ladakh.
- **3.** Lateral Entry (Diploma): Must have passed 10+3 Diploma from UTs of Jammu & Kashmir and Ladakh Polytechnics are eligible for admission in directly in second year in prescribed list of colleges in the vacant seats of Engineering branch only.
- 4. Income: Rs. 8.00 Lakh or below per annum (Family Income from all sources)

#### Process:

- Log on to AICTE Website and follow the Steps to apply for "Online Registration for scholarship" and follow the instructions on how to fill the online application.
- Step 1: Open AICTE Website via link: https://www.aicte-india.org/bureaus/jk
- Go to PMSSS tab on the home page.
- Step 3: Further click on the tab of A/Y 2024-25 and register yourself by following the instructions.

#### 4. CURRICULUM/ COURSE STRUCTURE

Each academic department follows a Model Curriculum recommended by AICTE, outlining the course structure for UG Degree Programs in Engineering & Technology at BTU.

This Curriculum specifies the courses, laboratories, and other prerequisites necessary for degree completion, along with the semester-wise sequence. Additionally, it includes the syllabus and a recommended list of textbooks and reference materials for each course. The Curriculum is revised every semester and can be accessed on the University's official website.

https://btu.ac.in/home/SYLLABUS-FOR-UNDERGRADUATE-PROGRAMME2021-22146

#### **4.1 SEMESTER SCHEME**

MITRC has implemented the Semester Scheme for all of its Programs and Degree Courses, following the example set by BTU, Bikaner. Each Program is structured according to the Semester Scheme. At MITRC, we have adopted a credit-based semester scheme. In an academic year, there are two regular semesters.

The first semester, which runs from July to December, is referred to as the Odd Semester (Semester 1, 3, 5, 7). The second semester, starting in January and ending in April/May/June, is known as the Even Semester (Semester 2, 4, 6, 8).

During the summer vacation period (May-June/July), we offer a selection of courses for Training/Internship purposes. Students have the opportunity to enroll in these courses based on the guidelines set for the summer.

Academic Activities	Tentative for Main Semester  Registration of Courses – 1 Week;  Course Work – 15-16 Weeks;  Sessional Exams: 1 Week-2 Weeks  External Examination Preparation – 1.0-2.0 Weeks;  Examinations – 1.0-2.0 Weeks;  Internal Practical Examination: 1 Week  External Practical Examination: 1 Week  Tentative Summer Semester:  Registration of courses – 1 Week;  Course work – 6.0-8.0 Weeks;
Extra Curricular Actvities	Tentative: Fresher Party: 1 Day Sports Week: 1 Week Annual Function: 2-3 Days Farewell Party: 1 Day

#### **Examination**

Internal Assessment: Assignments (4 Assignments in a Semester of Each Course), Unit Test (1st Unit Test after 1st Unit Over, 2nd Unit Test after 4th Unit Completed), Mid Term Examination (As Per University Calendar), Internal Practical Examination (Tentatively After 8-12 Weeks) and External Term Examination both having equal weightage in the students' performance in Course work/ Laboratory work and other activities.

#### **4.2 CREDIT SYSTEM**

A specific criterion or unit of academic work, measured in credits, is established as a fundamental prerequisite for a specific degree.

Students accumulate credits by successfully completing courses or other academic activities each semester. The number of credits assigned to a course or academic activity is determined by the expected weekly workload for the student.

#### **DEFINITION OF CREDIT**

1 Have Lastina /L\Dan\Mask	1 Cuadit
1 Hour Lecture (L)Per Week	1 Credit
1 Hour Tutorial (T)Per Week	.5 Credit
1 Hour Practical(P) Per Week	.5 Credit
2 Hour Practical(P) Per Week	1 Credit
3 Hour Practical(P) Per Week	1.5 Credits
4 Hour Practical(P) Per Week	2 Credits
SODECA	1 Credit
INNOVATION THINKING AND	
DESIGN AND HANDS ON PROJECT	3 Credits
MINI PROJECT	2 Credits
MINI PROJECT	7 Credits
INDUSTRIAL TRAINING (15 DAYS)	1 Credit
INDUSTRIAL TRAINING (45 DAYS)	3 Credits
SEMINAR	2 Credits

#### 4.2.1 THEORY AND PRACTICAL COURSES

Courses are categorized into two main types: Theory Courses and Practical Courses. Theory courses are comprised of Lecture (L) and Tutorial (T) hours, while Practical Courses include

Practical (P) hours in certain instances. Credit (C) for a course is calculated by multiplying the weekly hours of the course by a specific factor (1 for Lecture, 0.5 for Tutorial, and 0.5 for Practical Courses), as shown in the formula

C = 1xL + 0.5xT + 0.5xP.

NSS (Optional) and Anandam Activities do not carry any Credit. Students are only required to pass these courses.

#### **4.2.2 SEMINAR**

A seminar involves a student conducting a thorough study in a specific field or on emerging research topics, guided by a faculty member.

This includes reviewing published technical papers or conducting a literature review to gain a comprehensive understanding of the issue at hand.

The findings of the seminar must be compiled into a written report and presented to a designated panel of faculty members. Seminars usually earn **2 credits** upon completion.

#### 4.2.3 PROJECT

According to the Model Curriculum of the University, a Project is a fundamental requirement for obtaining a B.Tech Degree. Students are required to identify real-time issues and conduct research to develop innovative solutions by applying the knowledge acquired in design, analysis, and experimentation from previous courses. Each student must choose a Faculty Member as a Guide to oversee the completion of the Project. The outcomes of the Project should be documented in a written report, presentation, and Project Demonstration, which will be presented to an assigned panel or committee of faculty members. Mini Projects and Projects usually account for 2 and 7 credits, respectively.

#### 4.2.4 OPPORTUNITIES FOR ADDITIONAL LEARNING: HONOURS

The B.Tech degree or program acknowledges the diverse aspirations and demands of the workplace among students. Each student possesses unique abilities, interests, skills,

aspirations, and career goals. The program outlines the minimum credits and courses required for a candidate to obtain a Degree in a specific discipline.

Honours is an optional additional credential that students can achieve by completing an extra 20 credits. It is important to note that Honours does not reflect a specific class distinction.

Additional Credentials can also be obtained through MOOC Courses offered by NPTEL and SWAYAM Learning Platforms.

# 5 Minimum Credit Requirements of Individual Academic Program( Issued by Senate)

The minimum number of credits required for the award of a B.Tech. degree varies depending on the discipline. For students enrolled in the first year, they must earn a minimum of 166 credits from the first semester to the eighth semester in order to be eligible for an undergraduate degree. However, for students admitted through Lateral entry in the second year, the minimum requirement is 125 credits from the third semester to the eighth semester. Additionally, students can earn B.Tech Honours by obtaining an additional 20 credits through MOOC Courses.

Name of Degree in any	Minimum
Discipline	Credits
B.Tech	166
B.Tech Honours	186

#### **For Lateral Entry Students**

Name of Degree in any	Minimum
Discipline	Credits
B.Tech	141
B.Tech Honours	161

## 6 CURRICULUM FRAMEWORK/STRUCTURE OF UNDERGRADUATE ENGINEERING & TECHNOLOGY PROGRAM

In order to meet the requirements of Outcome Based Education, the Program Outcomes are established by the NBA (National Board of Accrediation) and the AICTE Proposed Model Curriculum, which is adopted by the University. MITRC also adheres to this Curriculum. The Program Outcomes are linked to different Course Outcomes, with the Curriculum being designed accordingly.

#### **B.TECH IN ARTIFICIAL INTELLIGENCE AND DATA SCIENCE-UG PROGRAMME**

COURSE CATEGORY	ABBRIVIATION	CODE	Break Up of Credit
Humanities and Social Sciences including Management Courses	UCH	1	4
Basic Science Courses	UCB	2	24
Engineering Science Courses including Workshop, Drawing, Electrical/Mechanical/Computer/Civil etc.	UCE	3	20
Professional Core Course	DC	4	77
Profession Elective Courses relevant to chosen Specialization/Branch/Discipline	DE	5	6
Project/Seminar/Training/Internship	UI	6	17.5
Open Subject-Electives relevant to Other Technical and/or Emerging Areas	OE	7	6
Social Outreach, Discipline and Extra Curricular Activities	UGE	8	6
Mandatory Courses (Indian Constitution, Environmental Sciences, Induction Training)	МС	9	Non Credit

SEMESTER	COURSES CREDIT	SODECA CREDIT	TOTAL CREDITS	
I	21	0	21	
II	21	0	21	
III	24	1	25	
IV	24	1	25	
V	25	1	26	
VI	22	2	24	
VII				
VIII				

TOTAL 142

#### **7 REGISTRATION**

#### 7.1. Registration for Semester:

It is compulsory for every student to register at the start of each semester, following the prescribed dates that are announced. This registration requirement remains in effect until the student completes their program. It is important for student that his/herall dues to be cleared, and students must deposit the fees for the semester.

Failure to register in a specific semester may result in the cancellation of the student's enrollment. Additionally, it is necessary for students to maintain a minimum attendance of 75% in order to be eligible to fill out the exam form for each semester.

#### 7.2 Registration for Seminar Course:

Registration for the Seminar Course must be completed at the start of the semester in which the Seminar Course is outlined in the Curriculum. This is a mandatory requirement for all students until they finish their program.

Students are required to choose a Faculty Member as their Guide and submit the Abstract of the Seminar Topic in the specified format to the Seminar Incharge after it has been signed by the Guide. Following this, students will need to prepare a Power Point Presentation and Report, which they will present to the Panel on the designated date.

It is important to note that before printing the Final Report, students must send a Soft Copy to their Guide for approval and then obtain the approval for the Hard Copy.

#### 7.3 Registration for Project Course:

Registration for the Project Course is mandatory for all students at the beginning of the semester in which the course is specified in the curriculum. This must be done within the announced prescribed dates.

Students are required to choose a Problem Statement related to real-life problems or industry demands. They must conduct research and propose innovative solutions by applying the knowledge gained from earlier courses in design, analysis, and experimentation.

Each student must select a Faculty Member as their Guide, who will supervise and assist them throughout the project. The student must submit the Abstract of the Project Title in the prescribed format to the Incharge, duly signed by the Guide.

Following this, the student will prepare a Power Point Presentation and work on the project. They are required to give presentations every two weeks, showcasing the progress made and seeking suggestions from the Guide/Panel. It is mandatory to have a minimum of 5 meetings with the Guide.

During the End Term Practical Exam, the student must give a Final Presentation, submit a hard copy of the report, and provide a final demonstration of the working prototype to the Panel on the prescribed date.

Before printing the Final Report, it is important to send a soft copy to the Guide for approval and then proceed with obtaining the approval for the hard copy.

#### 7.4 Registration for NSS Course:

Students can choose to participate in either the NSS Program or Course. This specific course does not offer any academic credit and is considered to be an optional choice. The evaluation for non-credit courses, like NSS, follows a Pass (PP) or Not Pass (NP) grading system.

In order to fulfill the minimum requirements for these activities and ensure a minimum attendance of 80%, students must meet the necessary criteria. It is crucial to officially enroll in one of these activities along with other courses during the first two semesters.

#### 8 Dropping of Semester/Drop Out:

- 1. Students who have dropped out of their studies due to medical reasons will be allowed to enroll in the next semester, provided they present a medical certificate issued by a recognized government authority.
- 2. In the event that students have dropped out of their studies for reasons other than medical grounds without informing the college or university, they will need to apply for admission to the university. The university will assess each case individually, taking into consideration the authenticity of the reasons provided.
- 3. If a candidate due to some or other reasons fails to appear in the University examinations of any semester/academic year, he shall be eligible to take admission in the next academic year.

However he has to complete the course as per the limit of course duration as per university norms.

#### 9 Academic Rules : Decided by Department of Program

- Each student is assigned a Mentor. Students must maintain a minimum attendance of
   75% throughout the Semester/Academic Year.
- If a student has medical issues, they must inform their Mentor in writing with a parent's signature.
- Upon rejoining, a Medical Certificate issued by a Registered Practitioner must be submitted.
- Students are required to wear a uniform with a proper dress code: black trousers, white shirt, black shoes, and a black tie on Monday, Tuesday, Thursday, Friday, and as per the notice of HOD/TPO for special activities.
- Failure to comply without a genuine reason may result in actions by the Mentor, such as not allowing participation in activities or classes.
- Students must wear the ID card issued by the College.
- Any student found engaging in disciplinary activities may face temporary suspension or cancellation of admission as decided by the Committee Members.
- Any involvement in ragging activities will lead to actions in accordance with UGC/AICTE Guidelines or cancellation of admission.
- All dues must be cleared at the time of registration, and Semester Fees must be submitted during registration.
- In the event of dropping a semester or dropping out, students must inform the
   Mentor/HOD/Exam Cell/Accounts at the beginning of the semester.
- Students must submit all assignments before the due date.
- MITRC utilizes various methods to enhance and explore students' academic and technical skills, such as assignments, unit tests, lab records, report writing, seminars, and projects.
- It is the moral duty of students to attend all unit tests, mid-term examinations, department/college activities, practical examinations, etc., and not to believe in rumors.

• Students must maintain a good academic record throughout the program. If they fail to do so, there will be consequences.

#### 10 EXAMINATION AND ASSESSMENT

Performance assessment of every enrolled student is done through various modes of assessment examinations in each semester. Various methods adopted for performance assessment are quizzes, Unit Tests, Home Assignments, Group Assignments, Viva-voce, Mid Term Examination and En Term Examination. The Course Instructor/Mentor/HOD will announce the modes of evaluation and distribution of weightage for each of the assessments at the beginning of the course or published on Notice Board.

Various modes of assessment Unit Tests, Mid Term Examination, Assignments, Quizzes, Viva – Voce, Internal Practical Exam for theory and practical courses along with the recommended relative weightage of various components are given by College and informed to Students by Mentor/HOD.

Weightage of various components of End Term Examination for Theory and Practical Courses are issued by University and informed to Students by Mentor/HOD.

#### **Internal Assessment:**

- Assignments (4 Assignments in a Semester of Each Course)
- Unit Test (1st Unit Test after 1st Unit Over, 2nd Unit Test after 4th Unit Completed)
- Mid Term Examination ( As Per University Calendar)
- Internal Practical Examination (Tentatively After 8-12 Weeks).
- All having weightage in the students' performance in Course work/ Laboratory work and other activities.
- Quizess decided by Instructor.
- Projects decided by Instructor.
- Group Discussion/PI/Aptitude Test/Skill Test/Psychometric Test decided by the HOD/Instructor.

 Various Stages of Training/Seminar/Project like Abstract Submission, Training Presentation, Seminar Presentation, Project Demonstration, Report Submission etc-Decided by HOD/Dean Academics.

CREDITS OF THEORY PAPER	UNIT TEST (HOURS	ASSIGNMENT (DAYS OF SUBMISSION)	MID TERM HOURS	END TERM EXAM (HOURS)
		DECIDE BY COURSE		
2	1	INSTRUCTOR	2	2
		DECIDE BY COURSE		
3	1	INSTRUCTOR	2	3
		DECIDE BY COURSE		
4	1	INSTRUCTOR	2	3

CREDIT OF THEORY PAPER	UNIT TEST MAXIMUM MARKS	ASSIGNMENT MAXIMUM MARKS	MID TERM MAXIMUM MARKS	END TERM EXAM MAXIMUM MARKS
		DECIDE BY COURSE		
2	20	INSTRUCTOR	30	70
		DECIDE BY COURSE		
3	30	INSTRUCTOR	30	70
		DECIDE BY COURSE		
4	30	INSTRUCTOR	30	70

#### FINAL INTERNAL ASSESSMENT FOR THEORY COURSE

INTERNAL MARKS MAXIMUM	1ST MIDTERM MAXIMUM	2ND MID TERM MAXIMUM	PRESENTATION/QUIZESS/ASSIGNME NTS MAXIMUM
100%	40%	40%	20%
30	12	12	8

#### FINAL INTERNAL ASSESSMENT FOR PRACTICAL COURSE

INTERNAL MARKS MAXIMUM	Attendance, Discipline,	Performance & Lab Record	Viva Voce
100%	40%	40%	20%
60	24	24	12