INFORMATION BULLETIN M. Sc. REGULAR ADMISSIONS (Through JAM) 2023-2024



National Institute of Technology Calicut (An Institute of National Importance) N.I.T. Campus P.O., Calicut – 673601, Kerala, India

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Part-I PROFILE OF THE INSTITUTE

1. Introduction

National Institute of Technology Calicut (NITC) is one of the premier national institutions for technical education in India. This was originally established in September 1961 as "Calicut Regional Engineering College (CREC)", jointly by the Government of India and the Government of Kerala. The Ministry of Education (Formerly Ministry of HRD), Government of India elevated CREC to a Deemed University and renamed CREC as National Institute of Technology Calicut in June 2002. NIT Calicut is an academically autonomous Institute of National Importance fully funded by the Government of India and is administered by the National Institutes of Technology Act, 2007. The President of India is the visitor to the Institute under the Act. The governance structure includes the national council for NITs as the apex policy making body, while the Institute's governance is vested with a Board of Governors. Institute's senate is the authority in academic matters. Chairman of the Board of Governors is nominated by the visitor. NITC offers academic programmes leading to B.Tech., B.Arch., M.Tech., M.Plan., M.Sc., MBA and Ph.D. degrees in various disciplines. NITC is a recognized Quality Improvement Programme (QIP) Centre for offering M. Tech. and Ph.D. programmes for faculty members of Engineering Colleges & Polytechnics. The institute is a recognized research institution for pursuing research work leading to Ph.D. degree under the National Doctoral Fellowship Scheme. NITC has well qualified faculty and dedicated supporting staff. Apart from teaching, NIT Calicut is engaged in a wide spectrum of activities covering research and development, industrial consultancy, continuing education to faculty/staff, and community development.

2. Location

Set in a picturesque landscape at the foothills of the Western Ghats, NIT Calicut is located about 22 kilometers north-east of Kozhikode city in the state of Kerala, India. Calicut, also known as Kozhikode, located in the Malabar region of Kerala State, found a place in the world history with the discovery of a sea route to India in 1498 by the Portuguese navigator Vasco Da Gama. Basking in the idyllic setting of the Arabian Sea on the west and the proud peaks of the Wayanad hills on theeast, Calicut is known for its serene beaches, lush green countryside, historic sites, calm backwaters, wildlife sanctuaries, rivers and waterfalls. The campus of National Institute of Technology Calicut stretches over a length of about 1.5 km along the Calicut-Mukkam Road, extending over an area of approximately 120 hectares. NITC is connected with Calicut city by KSRTC Buses (towards Mukkam) starting from KSRTC Central Bus Station and by Private Buses starting from Corporation Bus Station, Palayam (near Calicut Railway Station). Taxi and auto-rickshaws are available from Calicut Railway/Bus Station to NITC. The nearest airport is at Karipur, which is 45 kms from the Institute. Kozhikode railway station is 23 kilometers away from the NITC campus. Local buses are available frequently for commutation between campus and the main city.

3. Computing Facilities and Campus Network

Central Computer Centre (CCC) is the central facility in NIT Calicut which caters for the computing requirements of the whole community of this institution. The center has state of the art infrastructure with four fully operational terminal rooms spanning over three floors of the building. Decision Support System (DSS) of the institute also operates from the Centre building. The Centre has 250+ client machines and has a capacity to include 400+ machines. Client systems are of both desktop and workstation genre. Desktops contain DELL OPTIPLEX

7010, DELL Precision T3610, HP 406 Micro tower and HP Prodesk series which are of adequate performance and workstations contain Fujitsu Celsius W570 power series machines which are capable of more than handling high-end production and design level applications. CCC hosts some of the high-end servers and a parallel processing cluster machine. Servers include DELL PowerEdge T620 which has a dual Hexa-core processor, Lenovo ThinkSystem SR650 with 32GB Nvidia V100 card and HP ProLiant Rack server which has a dual quad-core processor. A state of the art HPC system with 25 Tera FLOPS computing power meet the research needs of the Institute. The facility can be accessed by all the departments and schools anywhere in the campus through networking. Computers in the CCC are loaded with Windows and Linux operating systems for convenience and centralized authentication is provided. Students are mandated to follow strict classroom discipline inside the Centre. Centre is fully air-conditioned and has UPS power backup for the whole setup. The Centre works 16 hours a day (8 am – 12 midnight), 7 days a week, except national holidays unless instructed otherwise.

The campus Networking Centre (CNC) is the central facility providing the software, hardware and networking support to the entire student and staff community of NITC campus. CNC manages internet connectivity (both wired and wireless), Institute website and IP phones within the campus. The campus is interconnected with about 30 kms of fiber optic backbone network with 80 routed internal networks, managed by the Unified Threat Management System. The centre is equipped with Firewall, Routers, Domain Name Server, Web Server, Proxy Servers and IP phone server, etc. Presently the network is served by 2 Gbps of Internet connectivity provided by BSNL (1 Gbps under NKN scheme of MoE). CNC functions on a 24x7 basis, 365 days without any holidays. IP phones are installed in all academic and administrative sections. The IP phones and IP phone server are also implemented, configured and managed by CNC.

4. Library Facilities

The Central Library of NIT Calicut is one of the best technical libraries in South India. It came into being with the establishment of the college in 1961. The library has a very good collection of more than one lakh technical/scientific books. Central Library offers its services to more than 8,000 users comprising of undergraduate, postgraduate students, research scholars, faculty and employees from various Departments/Schools/Centres/Sections of the Institute. The services of the Central Library are fully automated using KOHA, and the entire collection is accessible throughout the campus. Using KOHA OPAC, users can search the online library catalogue by Author, Title, Subject and Keywords. The library management software along with the existing campus-wide intranet imparts the following features: Automated front-desk operations, Campus-wide online access, catalogue access and RFID-based automated collection/bar-coded user identification. Central Library subscribes to reputed International Journals and Indian Journals in online and print forms. The Digital Library, 'NALANDA' provides online access to more than 6000 electronic journals in various Engineering and Science disciplines. NALANDA hosts many electronics databases in its servers. As a member of the Shodh Sindhu Consortium under the Ministry of Education, GOI, NALANDA promotes the use of e-journals and e-books for advanced research and learning in Engineering and Science Education. Major online resources are journal/magazine/ conference records/standards of IEE, IEEE, Springer, ASME, ASCE, and ACM Digital Library core packages. Online access to study materials is available through a local copy of NPTEL. Resources like CMIE, ACE Analyzer, Eikon, Grammarly, Knimbus, Emerald, J Gate, Scopus, and Web of Science are available to the NITC community through the digital library. Library also subscribes to a plagiarism checker - Turnitin. The digital library is developing the NITC resources by collecting and indexing the students' project reports/theses through an ETD run with DSpace, which also houses the national and international standards. Eduserver - running in the Digital Library - hosts the Moodle platform for online course management. E-books from Wiley, Springer and Pearson are also made available.

5. Centre for Career Development

Centre for Career Development envisages to inculcate a career-oriented campus culture that moulds the undergraduate, postgraduate and doctoral research students of the Institute to pursue their academic and professional goals. Formerly this centre was known as the Centre for Training and Placement which was formed in 1988. Understanding the need for a broader role to be taken for our students, the Centre for Career Development has been formed with effect from March 2022. This Centre is functioning with the following Objectives:

- Connect the students with placement and internship opportunities;
- Educate the students on knowledge of the self, career options and resources available;
- Empower the students with skill sets required in their careers.

6. Undergraduate and Postgraduate Programmes

NITC offers undergraduate programmes leading to B. Tech. degree in 10 disciplines and postgraduate programmes leading to M. Tech./M. Plan degrees in various specialized streams. In addition to this, the institute offers MSc degree programmes in three streams and an MBA programme (2 years - 4 semesters). The Institute also offers facilities for research leading to Ph.D. degrees in various branches of Engineering, Science and Management. The details of B. Tech, M. Tech./M. Plan. and MSc programmes are as given below:

Under graduate Level - B. Tech. Programmes (4 years - 8 semesters)

- Biotechnology (BT)
- Chemical Engineering (CH)
- Civil Engineering (CE)
- Computer Science and Engineering (CS)
- Electrical & Electronics Engineering (EE)
- Electronics & Communication Engineering (EC)
- Engineering Physics (EP)
- Materials Science and Engineering (MT)
- Mechanical Engineering (ME)
- Production Engineering (PE)

Under graduate Level - B. Arch. Programme (5 years - 10 semesters)

Department/ School	Programme	Programme Code
Architecture & Planning	Urban Planning	AR61
	Structural Engineering	CE61
Civil Engineering	Traffic & Transportation Planning	CE62
Civil Engineering	Offshore Structures	CE63
	Environmental Geotechnology	CE64
	Water Resources Engineering	CE65
Chemical Engineering	Chemical Engineering	CH61
	Computer Science & Engineering	CS61
Computer Science & Engineering	Computer Science & Engineering (Information Security)	CS62
	Electronics Design & Technology	EC61
Electronics & Communication Engineering	Microelectronics & VLSI Design	EC62
	Telecommunication	EC63
	Signal Processing	EC64
	Instrumentation & Control Systems	EE61
Electrical Engineering	Power Systems	EE62
Liceti icai Liigineeriiig	Power Electronics	EE63
	Industrial Power and Automation	EE64
	High Voltage Engineering	EE65
	Industrial Engineering and Management	ME61
	Thermal Sciences	ME62
Mechanical Engineering	Manufacturing Technology	ME63
	Energy Engineering and Management	ME64
	Materials Science and Technology	ME65
	Machine Design	ME66
Materials Science and Engineering	Nanotechnology	MT61

Post graduate Level - M.Tech./M.Plan. Programmes (2 years - 4 semesters)

M.Sc. Programmes (2 years - 4 semesters)

Department	M. Sc. Programme	Programme Code
Mathematics	Mathematics	MA62
Physics	Physics	PH62
Chemistry	Chemistry	CY62

7. Major Areas of Research and Consultancy

The major areas of research and consultancy of various departments/schools are as follows:

A. ARCHITECTURE AND PLANNING

- Urban and Regional Planning
 - Transportation
 - Infrastructure
 - Housing
 - Environmental Planning
 - Planning Informatics
 - Disaster Management & Climate Change
 - Smart Cities planning
- Architecture
 - Urban Design
 - Landscape
 - Conservation
 - Architectural Theory
 - Architectural Visualization & Product Design
 - Pedagogy
- Building Technology &

Management

- Building Services
- Energy Modelling
- Building Information &Modelling
- Alternate Building Materials
- Construction
- Management
- Structural Engineering
 - Masonry Structure,
 - Seismic Safety of Structures
 - Sustainable Strengthening Techniques,
 - Structural Dynamics & Earthquake Engineering,
 - Sustainable Concrete

B. CHEMICAL ENGINEERING

- Reaction and Bioprocess engineering
 - Bio-materials
 - Biofuels
 - Catalysts
 - Fermentation Technology
 - Bioreactors
 - Energy and Electrochemical Engineering
 - Electrochemical systems
 - Fuel Cells
 - Phase Change Heat transfer
 - Materials Science and Engineering
 - Carbon-based materials

- Nano composites
- Polymers and polymer Composites
- Soft Matter
- Process Control, Optimization and systems Engineering
- Flow Assurance in Oil and Gas Pipelines
- Process Intensification
- Rheology
- Process Modelling, Simulation, CFD and Theoretical computation
 - Machine Learning
 - Molecular Simulations
 - Multiphase Flow Modelling
 - Non-Newtonian Fluid Dynamics
 - Thermodynamic Modelling
- Environmental Engineering
 - Carbon Capture and Storage
 - Desalination
 - Membrane Separation
 - Microfluidics
 - Wastewater Treatment

C. CHEMISTRY

- Bioinorganic Chemistry
- Bioinspired Catalysis
- Biomimetic Inorganic Chemistry
- Energetic Materials/ High Energy Materials
- Heterocyclic Chemistry
- Main Group Organometallic Materials and Supramolecular Chemistry
- Materials Chemistry & Technology (Polymers, Biomacromolecules, Blends, Composites, Membranes)
- Medicinal Chemistry
- Organic & Bio-organic Chemistry
- Organic Synthesis and Catalysis
- Porphyrins and Metalloporphyrins
- Soft Materials
- Theoretical and Computational Chemistry
- Thermoelectric Materials
- Waste Management

D. CIVIL ENGINEERING

- Structural Engineering
- Offshore Structures
- Traffic and Transportation Planning
- Geotechnical Engineering
- Water Resources Engineering
- Environmental Geotechnology
- Building Technology and Construction Management
- Town Planning

E. COMPUTER SCIENCE & ENGINEERING

• Algorithms and complexity

- Bioinformatics
- Cloud Computing
- Compilers and Programming Languages
- Computer Architecture
- Database Management Systems
- Distributed Computing
- Image Processing
- Information Security
- Networks
- Operating Systems
- Software Engineering
- Artificial Intelligence/Machine Learning

F. ELECTRICAL ENGINEERING

- Instrumentation and Control Systems.
- Power and Energy Systems.
- Power Electronics & Machines.
- Industrial Power & Automation.
- Biomedical Signal Processing and Instrumentation.
- High Voltage Engineering
- Electric Vehicle

G. ELECTRONICS & COMMUNICATION ENGINEERING

- Electronics Design and Technology
 - Embedded System Design
 - EMI/ EMC, Control System Design
 - Biomedical System Design
 - System Design for Signal Processing and Communication
- Microelectronics and VLSI Design
 - Power Management in IC Design
 - Analog & Mixed-signal IC design
 - Semiconductor Device modelling
 - Micro fabrication Technology, Micro/Nano Electro Mechanical System MEMS/NEMS
 - VLSI architectures for Signal Processing and Communication
 - Photovoltaics Devices for Energy Harvesting
 - Fabrication and Modelling of Photovoltaics Devices
- Telecommunication
 - Wireless Communications and Networks
 - OFDM/MIMO and Massive MIMO
 - 5G & Beyond 5G Wireless Communications
 - Cryptography and Secure Communication
 - RF & Microwave Engineering
 - Coding Theory and Applications
 - Distributed Computing and Content Delivery
- Signal Processing

- Speech/ Audio / Image / Video Processing
- Signal Theory
- Compressed Sensing/ Sparse Signal Processing,
- Multi-rate Signal Processing
- Biomedical Signal Processing
- Radar/Array Signal Processing
- Machine Learning, Computer Vision
- Deep Learning
- Statistical Signal Processing and Bayesian Machine Learning
- Reinforcement Learning
- VLSI Architectures for Signal Processing & Deep Learning

H. MATHEMATICS

- Stochastic Modelling and Applied Statistics
- Numerical Analysis and Scientific Computing
- Mathematical Analysis
- Nonlinear Dynamics
- Operations Research
- Complex Analysis
- Fractional Calculus
- Differential Equations
- Number Theory
- Reliability of systems
- Combinatorics & Graph Theory
- Special Function and Function Spaces
- Wave Structure Interactions
- Functional Analysis
- Lie Algebra/Superalgebra
- Wavelets Theory
- Commutative Algebra
- Topology
- Fractal Geometry
- Spectral Graph Theory
- Operator Theory
- Time Series Analysis
- Computational Finance
- Actuarial Science.

I. MECHANICAL ENGINEERING

Industrial Engineering and Management

- Ergonomics and Product Design
- Supply Chain Management
- Marketing Management
- Human Resource Management
- Data Science Applications in Operations Management
- Machine Design
 - Computational Mechanics

- Robotics
- Tribology
- Machine Dynamics and Vibrations
- Nano- and Micro-mechanics
- Product Design
- Biomechanics
- Nonlinear dynamics
- Fatigue and Fracture
- Materials and Manufacturing.
 - Macro and Micro Machining
 - Modern Machining
 - Metrology
 - CAD/CAM
 - Composite Materials
 - Ferrous and Non-Ferrous Metallurgy
 - Materials for Electronics Application
 - Additive Manufacturing/3D printing
 - Digital Manufacturing and Design
 - Mechatronics and industrial automation
 - Materials for Sustainable Development
 - Structure-Property Correlation of materials
 - Advanced structural and functional ceramics

• Thermal and Energy Engineering

- Renewal Energy Technologies
- Energy Conservation
- Fuel Cells and Hydrogen Technology
- Computational Fluid Dynamics
- Heat Pipes
- Cryogenics
- Jets and Flow Acoustics
- Combustion and Fire Safety
- Fluid-Structure Interactions
- Multi-phase Flows
- High Performance Computing
- Lattice Boltzmann Modeling
- High Speed Flows
- Turbo-machinery
- Internal Combustion Engines
- Convection and Radiation Heat Transfer
- Non-Newtonian flows
- Heating and Ventilation Systems
- Thermal Management
- Microfluidics

J. PHYSICS

- Organic Solar Cell, Nano material for Energy Applications
- Organic & Hybrid Electronics & Photonics
- Graphene Photonics and Carbon Quantum Dots
- Nonlinear Optics and Nano Photonics
- Statistical mechanics of phase transitions Soft condensed matter Systems
- Computational Modeling of Materials
- Environmental Monitoring using principle of Optics
- Experimental Condensed Matter Physics
- Surface and Interface Science

- Diamond and Related Materials
- Oxide Thin films and Heterostructures
- Microfluidics and optofluidics
- Gravity and Black holes, Constrained dynamics
- Theoretical High Energy physics Quantum Field Theory, Lattice gauge theory, Quantum Chromodynamics
- Solar Astrophysics
- Photonic Crystals, Metamaterials, and Terahertz Devices
- Soft matter and statistical physics
- Statistical Physics and Thermodynamics
- Lasers, Imaging through Disordered media, Photonic crystals, and optical waveguides
- Nonlinear optics and Fluorescence microscopy

K. SCHOOL OF BIOTECHNOLOGY

- Enzyme Technology
- Microbiology
- Bioprospecting
- Cancer Research
- Bioinformatics and Computational Biology
- Gene Regulation
- Molecular genetics
- Machine Learning and Network biology
- NGS data analysis for Precision Medicine
- Protein Folding
- Protein Engineering
- Genetic Engineering
- Biomodeling and Drug Design
- Neurobiology
- Immunology
- Cytoskeleton and Motorproteins
- Biophysics
- Bionanotechnology
- Bio-Nano Engineering
- Tissue engineering
- Bioinspired materials
- Supramolecular chemistry and extremozymes
- Plant genomics and biotechnology

L. SCHOOL OF MANAGEMENT STUDIES

• Management & Social Sciences

Finance, Human Resources and Behavioural Sciences, Quantitative Techniques and Operations Management, Data Sciences & Analytics, Marketing, Economics Strategy, Entrepreneurship, Technology Management, Health Business & Policy, Public Policy and Public Administration

• Humanities (English)

English Studies, ELT, Cultural Studies, Indian Writing in English and Translations,

Postcolonial Studies, Dalit Studies, Food and Gender Studies and Early Childhood Education, Canadian Literature, Comparative Literature, Literary Theories, Theatre and Drama, and Art Management

M. SCHOOL OF MATERIALS SCIENCE AND ENGINEERING

- Solar Thermal Systems
- Solar Fuels
- Microscale/Nanoscale heat transfer
- Interferometric measurements
- Thermal Management of Devices (Electronics/Batteries)
- Emerging Solar Cell Technologies
- Perovskite Solar Cells
- Nanofluids
- Photo Catalysis/ Water Splitting
- Biomaterials
- Corrosion and Wear Resistant Coating
- Nano Composites for Energy
- Nanocomposites and Nanosensors
- Surface Modifications and Coating Techniques (Metals)
- Biodegradable Metals
- Lightweight metallic systems
- Electrospinning
- Nanocomposites
- Medical Materials (Metals and alloys)
- Affordable Healthcare
- Magnesium based Hydrogen storage
- Applied microscopy and spectroscopy
- Phase Change Materials
- Carbon materials for energy and devices
- Semiconductor Memories and devices

Part II ADMISSION TO M.Sc. PROGRAMMES

1. Introduction

Programmes leading to M.Sc. degree are offered by Departments of Mathematics, Physics and Chemistry at NIT Calicut.

Department	Code	Programme	Programme Code
Mathematics	MA	M.Sc. Mathematics	MA62
Physics	PH	M.Sc. Physics	PH62
Chemistry	СҮ	M.Sc. Chemistry	CY62

2. Eligibility for Admission to M Sc. Programmes

The candidates applying for admission to M.Sc. programmes at NITC have to satisfy the following minimum academic eligibility requirements as given below

M.Sc. Degree in Mathematics: B. Sc. Degree in Mathematics/ Applied Mathematics Or B. Mathematics with Mathematics/Statistics in all semesters Or B. Tech Degree in Engineering Physics/ Electrical Engineering/ Electronics Engineering/ Computer Science & Engineering/ Mechanical Engineering/ with minimum 60% marks (or CGPA 6.5/10) for GEN/GEN-EWS/OBC and 55% marks (or CGPA 6.0/10) for SC/ST/PwD and qualified JAM (2023) in Mathematics. In addition to these, the candidate should have done Mathematics at 10+2 level.

M.Sc. Degree in Physics: B Sc Degree in Physics/Applied Physics/Electronics with 3 Mathematics courses in UG level Or B. Sc. Ed. With Physics/Chemistry/Mathematics related subjects with a minimum of 3 Mathematics course in UG level Or B. Tech. degree in Engineering (any discipline) with minimum 60% marks (or CGPA 6.5/10) for GEN/GEN-EWS/OBC and 55% marks (or CGPA 6.0/10) for SC/ST/PwD and qualified JAM (2023) in Physics.

M.Sc. Degree in Chemistry: B Sc Degree in Chemistry (Main) with Mathematics as one of the subsidiaries (should have mathematics in 2 semesters or 1 year) with minimum 60% marks (or CGPA 6.5/10) for GEN/GEN-EWS/OBC and 55% marks (or CGPA 6.0/10) for SC/ST/PwD and qualified JAM (2023) in Chemistry.

Eligible Degrees, Special Eligibility Conditions and JAM Mapping for M. SC. (2023-24) Admissions at NIT Calicut are given in Annexure 1.

Only primary mode of evaluation (CGPA or percentage) as mentioned in the qualifying degree certificate/mark sheet shall be considered while verifying eligibility. In case both CGPA and percentage are mentioned, then only CGPA would be considered. Conversion from CGPA to percentage or vice versa given by individual Institute/University will not be considered/ allowed. If CGPA is on a different scale than the 10-point scale, then it would be linearly mapped to a 10-point scale.

In case, the result of qualifying degree is awaited, provisional admission is permitted to a candidate subject to meeting above minimum qualifying degree requirements latest by September 30, 2023. In these cases, all exams should have been completed by August 15,

2023. A certificate from the head of the current institute (format given on the CCMN website) to that effect should be submitted during document verification.

3. Process of Admission to M.Sc. Programmes

Admission to M.Sc. programmes at NIT Calicut for the academic year 2023-24 will be based on JAM score and will be done through the centralized counselling process CCMN. NIT Kurukshetra is the coordinating institute for CCMN 2023 (website: https://ccmn.admissions.nic.in/). Prospective candidates willing to join M.Sc. programme at NIT Calicut are required to apply through CCMN 2023.

M. Sc. Programmes											
Programme								PwD			
Name	OP	OB	SC	ST	EWS	OP	OB	SC	ST	EWS	Total
Mathematics	10	6	4	2	2	0	1	0	0	0	25
Physics	10	6	3	2	2	0	0	1	0	1	25
Chemistry	9	7	3	2	3	1	0	0	0	0	25

4. Seat Matrix for M.Sc. Admissions (2023-24) at NIT Calicut

Abbreviations: OP-Open, OB-other Backward Classes, SC-Scheduled Caste, ST-Scheduled Tribe, EWS-Economically Weaker Section, PwD-Persons with Disability.

Candidates may check the website (www.ncbc.nic.in) of the National Commission for Backward Classes, Govt. of India to ascertain from the CENTRAL LIST OF OTHER BACKWARD CLASSES whether they are entitled to seats reserved for the OBC category. The criteria for exclusion of OBC candidates belonging to "creamy layer" will be based on OM NO. 36033/3/2004-Estt. (Res) dated 9thMarch 2004 and any other modifications that may take place from time to time in this regard.

NITC provides 5% seats reservation for PwD category as per Govt. of India rules.

5. Highlights of the M.Sc. Programmes Conducted by NIT Calicut

The Four semester (Two year) M.Sc. programmes are based on the credit system comprising different core and elective courses and project work. The highlights of M.Sc. programmes offered by various departments at NITC are given in the following section.

DEPARTMENT OF MATHEMATICS

M.Sc. Degree in Mathematics: The focus of the Programme would be to generate mathematics graduates with strong fundamentals, who are confident of applying their knowledge to practical/research problems in Mathematics and related areas. The curriculum and syllabi maintain an appropriate balance between pure and applied mathematics by providing familiarity with a wide range of mathematical tools on the one hand and at the same time giving enough importance for developing analytical skills, thus keeping career option in academia, R&D organizations and Industries open.

DEPARTMENT OF CHEMISTRY

M.Sc. Degree in Chemistry: The department is offering a M.Sc. course in Chemistry. The aim of the programme is to prepare students for a career in academia or industry, with strong basics in fundamental aspects of chemistry and exposure to the latest research trends. The programme curriculum and syllabi are designed to cover all major branches of chemistry with regular revisions to incorporate the latest developments in each area.

DEPARTMENT OF PHYSICS

M.Sc. Degree in Physics: The objective of this two-year M.Sc. Physics programme is to prepare students for a career of research and academics, in basic or applied sciences. The programme focuses on building a strong base of fundamental principles on which modern physics is built. This would enable the students emerging from this programme to compete with the best of talent available at the entry point to Ph.D. programmes anywhere in the country or abroad.

Contact Details

Dr. A.V. Babu, Chairperson – PG Admissions National Institute of Technology Calicut NIT Campus P.O. Calicut 673 601 Kerala, India **Telephone: 0495 2286119 E-mail:** <u>pgadmissions@nitc.ac.in</u>

6. Fee Structure

The fee structure for M.Sc. Programmes (2023-24) admissions at NIT Calicut is as given below.

Tuition Fee may vary as per the directives of Ministry of HRD, Government of India from time to time. The present tuition fee is as per MHRD Order F. No. 33-4/2014-TS.III dated 5th May, 2014 and subsequent clarifications under reference F No. 28/2013/TS.III dated 21st October, 2014. Other fees are as determined by the Institute as per provision of Statute No. 37(i)(b).

Fee Category			All Candidates		
(a) Onetime fee at the time of a	admission#(Rs.)			
Caution Deposit	5,000				
Admission Fee	3,000				
Library Fee	2,000				
Development Fee	10,000				
Association & Cultural Fee	1,000				
Alumni Affairs Fee	2,000				
Seminar/Thesis Fee	1,500				
Career Development Fee	2,000				
Students Welfare Fee	1,000				
Convocation Fee	3,000				
Total (a)	Rs. 30,500/-				
(b) Other Fee [#] (Rs.)	Monsoon	Winter	Monsoon	Winter	
	Semester	Semester	Semester	Semester	
	2023-24	2023-24	2024-25	2024-25	
Tuition Fee	7,500*	7,500*	7,500*	7,500*	
Registration Fee	750	750	750	750	
Examination Fee	1500	1500	1500	1500	
Health Centre Facility Fee	500	-	500	-	
Students Activities Fee	1,000	-	1,000	-	
Sports Fee	1,000	-	1,000	-	
Campus Amenities Fee	500	-	500	-	
Central Computing Facility Fee	500	-	500	-	
Internet Fee	500	-	500	-	
Mediclaim**	755	-	755	-	
Total (b)	Rs.14,505	Rs.9,750	Rs.14,505	Rs.9,750	
(c) Hostel Seat Rent (Includes Room Rent, Electricity, Water	KS. 9.0007-180areo Koomi KS. 9.0007-180areo Koon			nared Room)	
Charges) [#]	Rs. 10,000/- (Single Room) Rs. 10,000/- (Single Room				
Total Amount during admission		Rs.54,005/-@			

*NIL for SC/ST students

**Mediclaim Policy amount may vary year to year.

@ Room rent for shared room is added. Additional rent of Rs.1000/- for single room, if allotted, shall be collected later as dues.

#Subject to revision every year

7. Hostel Fee Structure

Hostel fee details common to all UG/PG/PhD programmes (w.e.f. 2023 admissions) at NIT Calicut are as given below.

Sl.No.	Description	Amount (in Rupees)				
A. One	A. One-time fee at the time of admission					
	1. Cost of Application Form (Non-Refundable)	500/-				
	2. Hostel Amenities fund (Non-Refundable)	6,500/-				
	3. Caution and Furniture Deposit (Refundable at the end of the Programme on the production of Non-Liability Certificate)	15,000/-				
	Total (One-time fee at the time of admission)	22,000/-				
B. Hos	B. Hostel establishment charges and other charges per semester					
C. Mes	27,000/-					
Total	Fee at the time of admissions	62,000/-				

Note:

Items B & C are payable upfront, in the beginning of every semester.
Hostel seat rent collected by Institute covers rent, electricity charges and water charges.

Annexure 1 Eligible Degrees, Special Eligibility Conditions and JAM Mapping M. SC. 2023 Admissions

Department	Program	Eligible UG Degree	Special Eligibility Conditions	JAM Subject
		B.Sc. Chemistry-(S103)	Mathematics for any 2 semesters/1 year in UG level	Chemistry(CY)
		B.Sc. Honors (Chemistry)- (S102)	Mathematics for any 2 semesters/1 year in UG level	Chemistry(CY)
	M Sc in	B.Sc. Applied Chemistry- (S105)	Mathematics for any 2 semesters/1 year in UG level	Chemistry(CY)
Chemistry	Chemistry (CY)	B.Sc. Honors (Applied Chemistry) -(S104)	Mathematics for any 2 semesters/1 year in UG level	Chemistry(CY)
			Chemistry as one of the subject in 6 semesters/3 years in UG level	
		B. Sc (S-101)	Mathematics for any 2 semesters/1 year in UG level	Chemistry(CY)
			Physics for any 2 semesters/1 year in UG level	
		B.Sc. Physics-(S108)	3 Mathematics courses in UG level	Physics (PH)
		B.Sc. Honors (Physics)- (S107)	3 Mathematics courses in UG level	Physics (PH)
		B.Sc. Applied Physics- (S110)	3 Mathematics courses in UG level	Physics (PH)
	M.Sc. in Physics (PH)	B.Sc. Honors (Applied Physics) -(S109)	3 Mathematics courses in UG level	Physics (PH)
		B.Sc. Electronics-(S112)	3 Mathematics courses in UG level	Physics (PH)
		B.Sc. Honors (Electronics)-(S111)	3 Mathematics courses in UG level	Physics (PH)
		B.Sc. Ed(S114)	Physics/Chemistry/Mathematics related subjects with a minimum of 3 Mathematics course in UG level	Physics (PH)
Physics		B. Sc (S-101)	Physics as one of the subjects in 6 semesters/3 years in UG level	Physics (PH)
		B.E./B.Tech. (any discipline) -(T999)	Nil	Physics (PH)

		B.Sc. Mathematics-(S116)	Mathematics in 10+2 level	Mathematics (MA)
		B.Sc. Honors (Mathematics)-(S115)	Mathematics in 10+2 level	Mathematics (MA)
		B.Sc. Applied Mathematics-(S118)	Mathematics in 10+2 level	Mathematics (MA)
		B.Sc. Honors (Applied Mathematics) -(S117)	Mathematics in 10+2 level	Mathematics (MA)
		B. Mathematics-(A202)	Mathematics in all semesters in UG level Mathematics in 10+2 level	Mathematics (MA)
		B.Sc. Mathematics and Computer Applications- (S125)	Mathematics in 10+2 level	Mathematics (MA)
		B. Sc (S-101)	Mathematics in all semesters in UG level Mathematics in 10+2 level	Mathematics (MA)
		B.Sc. Mathematical Sciences – (S123)	Mathematics in all semesters in UG level Mathematics in 10+2 level	Mathematics (MA)
		B.E./B.Tech. (Engineering Physics) -(T301)	Mathematics in 10+2 level	Mathematics (MA)
		B.E./B.Tech. (Electronics)-(T302)	Mathematics in 10+2 level	Mathematics (MA)
	M.Sc. in	B.E./B.Tech. (Electrical)- (T303)	Mathematics in 10+2 level	Mathematics (MA)
Mathematics	Mathematics	B.E./B.Tech. (Computer Science and Engineering)- (T304)	Mathematics in 10+2 level	Mathematics (MA)
		B.E./B.Tech. (Mechanical Engineering) -(T305)	Mathematics in 10+2 level	Mathematics (MA)
		B. A . in Mathematics (A205)	Mathematics in 10+2 level	Mathematics (MA)
		B. A . in Applied Mathematics (A206)	Mathematics in 10+2 level	Mathematics (MA)
		B. E./B. Tech. (Mathematics and Computing) (T310)	Mathematics in 10+2 level	Mathematics (MA)

B. Sc. Statistics (S120)	Mathematics in 10+2 level	Mathematics (MA)
B. Sc. Ed. In Mathematics (S167)	Mathematics in 10+2 level	Mathematics (MA)
B. S. in Mathematics (S165)	Mathematics in 10+2 level	Mathematics (MA)
B. S. in Applied Mathematics (S166)	Mathematics in 10+2 level	Mathematics (MA)
B. Sc. Mathematics and Computing (S169)	Mathematics in 10+2 level	Mathematics (MA)
B. Sc. Mathematics and Computer Science (S170)	Mathematics in 10+2 level	Mathematics (MA)
B. Sc. Mathematics, Statistics and Computer Science (S171)	Mathematics in 10+2 level	Mathematics (MA)