



IIT Madras
Zanzibar

IIT Madras Zanzibar Campus Screening Test (IITMZST) 2025



Information Brochure

For Admission to Full-Time BS in Chemical Process Engineering program at
Indian Institute of Technology Madras, Zanzibar Campus

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About IIT Madras Zanzibar:

The Indian Institute of Technology Madras (IITM) is an institute of national importance established through an Act of Indian Parliament in 1959. IIT Madras Zanzibar, established in 2023, is the first international campus of IIT Madras. The inception of IITM's new campus in Zanzibar, Tanzania marks a significant step in strengthening the ties between India and Africa. IITM Zanzibar promises to bring the same rigor that has defined IIT Madras academic culture to its Zanzibar campus to substantively contribute to the human resources development of the region.

IITM Zanzibar awards **IIT Madras academic degrees**, and prides itself on an exceptional educational experience for students. Currently, IITMZ offers two undergraduate programs and two Master of Technology Programs as full-time degree programs, apart from PhD and research options and the programs are expected to grow in the years to come. The student cohort comprises a diverse group, with excellent representation from India, Zanzibar, Tanzania, Nepal, Bangladesh, Zambia, Kenya and 40% of them are women.

IIT Madras Zanzibar leverages the unique strengths of IIT Madras to develop as an internationally renowned institution serving the needs of Africa and the world in interdisciplinary STEM education, scientific research and technological innovations for nation-building.

Academic Programs:

BS in Data Science and Artificial Intelligence:

The IITM Zanzibar campus offers admission into the undergraduate program leading to 4-year Bachelor of Science (BS) in Data Sciences and AI. The total number of seats available in this program is 75.

BS in Chemical Process Engineering:

The IITM Zanzibar campus offers admission into the undergraduate program leading to 4-year Bachelor of Science (BS) in Chemical Process Engineering. The total number of seats available in this program is 20.

MTech in Data Science and Artificial Intelligence:

The IITM Zanzibar campus offers a post graduate program leading to 2-year Master of Technology (MTech) in Data Science and AI. The total number of seats available for this program is 25.



MTech in Ocean Structures:

The IITM Zanzibar campus offers a post graduate program leading to 2-year Master of Technology (MTech) in Ocean Structures. The total number of seats available for this program is 25.

Eligibility Criteria for BS in Chemical Process Engineering:

The program is open to students worldwide who meet the minimum eligibility requirements. Applicants are expected to have a basic proficiency in English. All candidates must fulfill the educational qualification criteria to be considered for admission. program is open to students across the globe who satisfy the minimum eligibility criteria.

Registration / Admission will be canceled if it is found later that the candidate does not meet the eligibility criteria.

For the BS program, the candidate should have passed one of the following exams:

- Class 12 Examination recognized by the Central/ Indian State Board (CBSE, Matriculation etc.)
- Advanced Certificate of Secondary Education (Form VI)
- General Certificate Education (GCE) Examination - Advanced (A) Level
- Cambridge International AS & A Levels
- International Baccalaureate® (IB) - Diploma Programme (DP)
- Any School/Board/University examination in India or in any foreign country recognized as equivalent to 10+2 system by the Association of Indian Universities (AIU)

Note:

1. Students who completed the qualifying exam from the year 2022 are eligible
2. Students currently in Class 12/Form VI or equivalent (Passing out in May/July '25)
3. *Candidates must have studied Physics, Chemistry, and Mathematics at the qualifying level to be eligible for the BS in Chemical Process Engineering.*

Age limit:

For the BS CPE program, the candidate must have passed Class XII (or equivalent) in the last 3 years. That means, candidates who have completed the qualifying exam prior to 2022 are not eligible.



Schedule of Screening Test (IITMZST 2025):

Candidates applying to the BS CPE program will have to appear in the screening test, i.e. IITMZST 2025. The test will be of 3 hours' duration.

For 2025, the screening test will be conducted on **July 13, 2025 (Sunday)***

Test Timings: Indian Standard Time: 2 PM - 5 PM IST, East African Time: 11:30 AM - 02:30 PM

*It may be noted that the examination date will remain unchanged even if it is declared a public holiday.

Selection process for BS in Chemical Process Engineering:

The selection of candidates for admission involves a three-stage process.

Stage 1: all the applications are assessed on the basis of the information provided by the applicant, such as previous academic performance, and curricular or co-curricular achievements. No candidate will be eliminated in this round unless his/her application is incomplete or the candidate does not meet the minimum eligibility criteria.

Stage 2: all candidates whose applications are found to be complete are eligible to appear for the screening test (IITMZST 2025).

Candidates shortlisted based on their performance in Stage 1 and Stage 2, will appear in an interview which constitutes Stage 3.

Stage 3: The list of the candidates shortlisted for interview will be intimated by email. Based on the interview outcome, selected candidates will be granted admission to the respective programs.

The distribution of marks across these stages is the following:

Stage 1	Assessment of applications	10 marks
Stage 2	Online Screening test	60 marks
Stage 3	Online Interview	30 marks

The subjects covered in the Screening Test and their respective weightage of marks for the BS CPE program is provided below.



1	English and Comprehension	10 marks
2	Analytical ability	10 marks
3	Mathematics	25 marks
4	Chemistry and Physics	15 marks

The detailed syllabus for the BS CPE screening test can be found towards the end of the document (Annexure 1)

Mode and Pattern of IITMZST 2025:

The screening test will be a computer-based test (CBT) held online. It will test the candidate's aptitude to pursue the courses offered by IITM Zanzibar. The question paper will be in English. The test will be of 3 hours' duration, and consists of objective type multiple choice questions (MCQs), multiple select questions (MSQs) and numerical answer type questions (NAT). The candidates must carefully read and adhere to the detailed instructions given in the online question paper available at the time of examination.

The Admit Card will be issued to the candidates, and it will carry the details of the guidelines to be followed during the test.

There will be no negative marking in the screening test. Although sufficient care will be taken for the correctness of questions. In the event that a question(s) needs to be dropped, full marks for that question(s) will be awarded to ALL candidates.

Academic Guidelines:

Regulations at IITM Zanzibar campus are developed along the lines of the existing UG/PG norms of IIT Madras. The number of hours of classroom activity, lab/practical hours etc. will be strictly adhered to in the timetable (not to mention providing sufficient time for study and extra-curricular activities outside class hours).

Timetable (classes, exams, etc.) will be developed for Zanzibar considering the local holidays, students' study abroad programs and internships.



Online Application:

Candidates can apply/register online by visiting the IIT Madras Zanzibar website <https://www.iitmz.ac.in/>.

There is no application fee involved in the application process of the BS in Chemical Process Engineering program.

For all relevant information and updates, visit <https://www.iitmz.ac.in/admission>

For admission queries, write to admissions@iitmz.ac.in

Registration for BS CPE	Dates
Online registration begins	June 18, 2025
Online registration closes	July 5, 2025
Registration fees	Nil

Examination Centers:

The BS CPE screening test will be conducted simultaneously at several centers in different parts of the world.

1. Africa

Arusha, Tanzania	Dar es Salaam, Tanzania	Dodoma, Tanzania	Mbeya, Tanzania
Pemba, Zanzibar	Unguja, Zanzibar	Nairobi, Kenya	Lusaka, Zambia
Kampala, Uganda	Addis Ababa, Ethiopia	Lilongwe, Malawi	Lagos, Nigeria
Durban, South Africa	-	-	-



2. Middle East

Dubai, UAE	Abu Dhabi, UAE	Doha, Qatar	Muscat, Oman
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3. Indian Sub-Continent

Dhaka, Bangladesh	Kathmandu, Nepal	Colombo, Sri Lanka
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4. India

Chennai

All candidates have to reach the examination center at their own expense and have to make their own arrangements to appear for the examination.

Application must be complete in all respects. Incomplete application or application with incorrect information is liable for rejection. The details entered by the candidates should be as per the documents they upload.

Communication will be sent to the candidates through their registered email id or registered mobile number. The candidates are required to provide their email id and a valid mobile phone number while filling the application form. The mobile number will help us to “SMS/WhatsApp” important messages to the candidates or help the candidates to know their application status.

For all admission-related queries, write to admissions@iitmz.ac.in

Admit Card:

The candidates can download the admit card tentatively a week before the test date. The admit card will bear the name, photograph, date of birth, address and the address of the Test Centre allotted. The candidate should carefully examine the admit card for all the entries made therein. In case of any discrepancy, the candidate should inform the competent authority through an email immediately.



Please note that impersonation is a legally punishable offence. No applicant will be permitted to write the examination without a valid admit card. If the identity is in doubt, the candidate may not be allowed to appear in the examination.

Fee Structure:

The annual tuition fee is 12,000 USD.

Hostel (Accommodation & Mess) expenses will be extra.

Important dates:

Applications Opening Date	June 18, 2025
Applications Closing Date	July 5, 2025
Date of Examination	July 13, 2025
BS Examination Time	02:00 PM - 05:00 PM Indian Standard Time 11.30 AM - 02.30 PM East African Time
Dates of Interviews for shortlisted candidates	July 25-30, 2025
Announcing results and sending admission letters	August 2025



Annexure 1

Syllabus for BS in Chemical Process Engineering

English and Comprehension:

Reading Skills: Candidates will be required to read given passage(s) that aim(s) to test their comprehension skill and ability to articulate ideas through words. Questions related to the structure and organization of the passages may also be asked.

Vocabulary: This section will be a test of vocabulary and the ability to understand the stated or implied meaning as well as collocation and structure of words.

Analytical ability:

Spatial reasoning, Data interpretation, Analogies, Logical reasoning, puzzles & patterns

Mathematics:

Algebra and Trigonometry: Linear equations in one and two variables, geometric interpretation. Trigonometric identities and equations. Trigonometric functions, inverse trigonometric functions, and their properties. Heights and distance.

Geometry: Cartesian system of rectangular coordinates in a plane, distance formula, section formula, locus, and its equation, translation of axes, the slope of a line, parallel and perpendicular lines, intercepts of a line on the coordinate axes.

Straight lines: Various forms of equations of a line, intersection of lines, angles between two lines. Distance of a point from a line.

Circles: Standard form of the equation of a circle, the general form of the equation of a circle.

One Variable Differential Calculus: Real-valued functions of a real variable, algebra of functions. Polynomials, rational, trigonometric, logarithmic and exponential functions and inverse functions. Limits, continuity, and differentiability. Operations on limits. Differentiation of trigonometric, inverse trigonometric, logarithmic, exponential, composite and implicit functions.



One Variable Integral Calculus: Integral as an antiderivative. Basic integrals involving algebraic, trigonometric, exponential and logarithmic functions. Integration by substitution, by parts, and by partial fractions. Integration using trigonometric identities. Integral as the limit of a sum. Evaluation of simple integrals.

Vector Algebra: Vectors and scalars, addition of vectors, vectors in two dimensions and three-dimensions. Scalar products, vector products, and vector triple products.

Probability: Probability of an event, addition and multiplication theorems of probability, Bayes' theorem.

Statistics: Calculation of mean, median, mode of grouped and ungrouped data calculation of standard deviation, variance and mean deviation for grouped and ungrouped data.

Permutations and combinations: The fundamental principle of counting. Permutation as an arrangement and combination as a selection. The meaning of $P(n,r)$ and $C(n,r)$, simple applications.

Mathematical logic: Statements and logical operations: or, and, implies, implied by, if and only if. Notions of tautology, contradiction, converse, and contrapositive.

Chemistry:

Structure of Atom: Discovery of electron, proton and neutron; atomic number, isotopes and isobars. Thomson's model and its limitations, Rutherford's model and its limitations, Bohr's model and its limitations. Concept of shells and subshells, shapes of s , p and d orbitals, rules for filling electrons in orbitals - Aufbau principle, Pauli's exclusion principle and Hund's rule, electronic configuration of atoms.

Classification of elements and periodicity: Types of elements, Periodic trends in physical properties of elements -atomic radii, ionic radii, Ionization enthalpy, electron gain enthalpy, electronegativity.



Chemical Bonding and Molecular Structure: Valence electrons, ionic bond, covalent bond, Lewis's structure, valence bond theory, geometry of covalent molecules, VSEPR theory, concept of hybridization, involving *s*, *p* and *d* orbitals and shapes of some simple molecules, Hydrogen bond.

Basic Organic Chemistry: General introduction, classification and IUPAC nomenclature of organic compounds. Electronic displacements in a covalent bond: inductive effect, electrometric effect, resonance and hyperconjugation. Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions; electrophiles and nucleophiles, types of organic reactions.

Gaseous State of Matter: Gas laws, Ideal gas and real gas behaviors.

Physics:

Physics and Measurements: Units and Dimensions, Dimensional Analysis, Errors and Least Count

Kinematics: Motion in a straight line - displacement, instantaneous velocity/ acceleration

Laws of Motion: Newton's Laws, Conservation of Momentum

Work, Energy and Power: Work-Energy Theorem, Kinetic and Potential energy, Conservation of Energy

Gravitation: Kepler's Laws, Law of Gravitation, Acceleration due to gravity

Oscillations: Periodic Oscillations, Simple Harmonic motion

Electricity: Current-Ohm's Law, Resistors in Series and Parallel

Optics: Refractive Index, Reflection, Refraction-Snell's law, Mirrors and Lenses



For all admission queries

Email id: admissions@iitmz.ac.in

IITMZST 2025 Admission Committee
IIT Madras

