

Siliguri Institute of Technology
Department of Engineering Sciences and Humanities (DESH)
Bridge course for AY 2024-25

Notice

This is to inform to all the aspirants that Department of Engineering Sciences and Humanities (DESH) of Siliguri Institute of Technology (SIT) is going to conduct a 30 hours (02 weeks) bridge course for the academic batch of 2024-25.

Aims and Objectives:

- The proposed bridge course is to bridge the gap between the subjects studied in 10+2 level and subjects they will be studying in engineering graduation course.
- Assists the new students to achieve expected competencies in their chosen programs by bridging the gap between the subjects studies in 10+2 level and subjects of study in the UG (B.Tech) program as well as between UG and PG program.
- To bridge the gap “Essentials of Mathematics, Chemistry, Physics, English Communications, and Introductory Soft Skills” will be delivered in structured sessions.

Interested candidates shall have to register themselves through the link provided below:

Registration Link:

https://docs.google.com/forms/d/e/1FAIpQLSdeD1FKuxTBicmI03ZwnpRlqGk - CVs4ee_HeBr8jdxYsSP8g/viewform?usp=sf_link

Please note that, certificates will be issued to all the candidates after successful completion of the course.



Dr. Jayanta Dutta
Associate Professor, DESH &
Course Coordinator, Bridge Course, AY 2024-25



Dr. Debasmriti Bhattacharjee
HOD, DESH, SIT



Principal
Siliguri Institute of Technology

Bridge course for AY 2024-25

General Instructions

The students coming to the college campus should strictly follow the following rules and regulations:

1. In order to maintain the decorum of the college, the students coming for the Bridge course should maintain the proper discipline and avoid creating chaos or confusion amongst others.
2. No transportation facility will be provided to the students while attending the bridge course.
3. In regard to the conduction of the bridge course, the college does not provide any support for food and lodge, so no such queries will be entertained.
4. The students coming for the Bridge course are restricted to use canteen facility in the campus.
5. **Reporting Time: 10.00 AM. Departure Time: 01.15 PM.**



Dr. Jayanta Dutta
Associate Professor, DESH &
Course Coordinator, Bridge Course, AY 2024-25



Dr. Debasmriti Bhattacharjee
HOD, DESH, SIT

SILIGURI INSTITUTE OF TECHNOLOGY

Department of Engineering Sciences & Humanities

ROUTINE FOR BRIDGE COURSE 2024-2025 (SEC-I, SEC-II, SEC-III & SEC-IV)

SECTION	ROOM NO.	DAY / TIME	10.15AM-11.00AM	11.00AM-11.45AM	11.45AM-12.30PM	12.30PM-1.15PM
SEC-I	D-101	DAY-1 (Thursday) 01/08/2024	OBJECTIVE TYPE TEST		OBJECTIVE TYPE TEST	
SEC-II	D-102		MATHEMATICS	PHYSICS	ENGLISH	CHEMISTRY
SEC-III	D-104		MATHEMATICS	PHYSICS	ENGLISH	CHEMISTRY
SEC-IV	D-201		MATHEMATICS	PHYSICS	ENGLISH	CHEMISTRY
SEC-I	D-101	DAY-2 (Friday) 02/08/2024	PHYSICS (BAD)	MATHEMATICS(MB)	ENGLISH (RC)	INTRODUCTION TO ENGG.(CSE DEPT.) (AM)
SEC-II	D-102		ENGLISH (HR)	PHYSICS (BAD)	MATHEMATICS(MB)	INTRODUCTION TO ENGG.(EE DEPT.) (AD)
SEC-III	D-104		MATHEMATICS(SGL)	ENGLISH (HR)	CHEMISTRY(SKS/RS)	CHEMISTRY(SKS/RS)
SEC-IV	D-201		CHEMISTRY(SKS/RS)	MATHEMATICS(SGL)	ENGLISH (RC)	PHYSICS (BAD)
SEC-I	D-101	DAY-3 (Monday) 05/08	CHEMISTRY(SKS/RS)	PHYSICS (BAD)	MATHEMATICS(JD)	ENGLISH (RC)
SEC-II	D-102		PHYSICS (BAD)	MATHEMATICS(DB)	CHEMISTRY(SKS/RS)	ENGLISH (HR)
SEC-III	D-104		MATHEMATICS(JD)	CHEMISTRY(SKS/RS)	ENGLISH (HR)	PHYSICS (BAD)
SEC-IV	D-201		ENGLISH (RC)	CHEMISTRY(SKS/RS)	MATHEMATICS(DB)	INTRODUCTION TO ENGG.(CSE&AIML DEPT.) (SSG)
SEC-I	D-101	DAY-4 (Tuesday) 06/08	CHEMISTRY(SKS/RS)	ENGLISH (RC)	CHEMISTRY(SKS/RS)	INTRODUCTION TO ENGG.(EE DEPT.)(IK)
SEC-II	D-102		ENGLISH (HR)	MATHEMATICS(SGL)	CHEMISTRY(SKS/RS)	PHYSICS (BAD)
SEC-III	D-104		PHYSICS (BAD)	CHEMISTRY(SKS/RS)	MATHEMATICS(DB)	INTRODUCTION TO ENGG.(ECE DEPT.) MP
SEC-IV	D-201		MATHEMATICS(MB)	INTRODUCTION TO ENGG.(CE DEPT.)	PHYSICS (BAD)	INTRODUCTION TO ENGG.(IT DEPT.)
SEC-I	D-101	DAY-5 (Wednesday) 07/08	ENGLISH (RC)	MATHEMATICS(SGL)	CHEMISTRY (SKS/RS)	INTRODUCTION TO ENGG.(EE DEPT.)(IK)
SEC-II	D-102		CHEMISTRY (SKS/RS)	ENGLISH (HR)	CHEMISTRY(SKS/RS)	INTRODUCTION TO ENGG.(CSE DEPT.) (AB)
SEC-III	D-104		PHYSICS (BAD)	CHEMISTRY (SKS/RS)	INTRODUCTION TO ENGG.(CSE&AIML DEPT.) (JDD)	MATHEMATICS(SGH)
SEC-IV	D-201		MATHEMATICS(JD)	PHYSICS (BAD)	ENGLISH (RC)	INTRODUCTION TO ENGG.(CSE&AIML DEPT.)

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SEC-I	D-101	DAY-6 (Thursday) 08/08	INTRODUCTION TO ENGG.(ECE DEPT.) MS	CHEMISTRY(SKS/RS)	MATHEMATICS(DB)	ENGLISH (RC)
SEC-II	D-102		CHEMISTRY(SKS/RS)	MATHEMATICS (JD)	PHYSICS (BAD)	INTRODUCTION TO ENGG.(CSE&AIML DEPT.) (JD)
SEC-III	D-104		PHYSICS (BAD)	INTRODUCTION TO ENGG.(IT DEPT.) (DK)	ENGLISH (HR)	MATHEMATICS(SGL)
SEC-IV	D-201		MATHEMATICS(SGH)	CHEMISTRY(SKS/RS)	CHEMISTRY(SKS/RS)	PHYSICS (BAD)
SEC-I	D-101	DAY-7 (Friday) 09/08	CHEMISTRY (SKS/RS)	INTRODUCTION TO ENGG.(ECE DEPT.) AS	INTRODUCTION TO ENGG.(IT DEPT.) (SB)	PHYSICS (BAD)
SEC-II	D-102		INTRODUCTION TO ENGG.(EE DEPT.) (AD)	CHEMISTRY (SKS/RS)	MATHEMATICS(JD)	INTRODUCTION TO ENGG.(IT DEPT.) (DK)
SEC-III	D-104		PHYSICS (BAD)	MATHEMATICS(MB)	INTRODUCTION TO ENGG.(CE DEPT.)	ENGLISH (HR)
SEC-IV	D-201		MATHEMATICS(SGH)	CHEMISTRY(SKS/RS)	ENGLISH (RC)	INTRODUCTION TO ENGG.(ECE DEPT.) DG
SEC-I	D-101	DAY-8 (Monday) 12/8	MATHEMATICS(SGH)	PHYSICS (BAD)	ENGLISH (RC)	INTRODUCTION TO ENGG.(CSE&AIML DEPT.)
SEC-II	D-102		ENGLISH (HR)	CHEMISTRY (SKS/RS)	INTRODUCTION TO ENGG.(ECE DEPT.) SG	INTRODUCTION TO ENGG.(CE DEPT.)
SEC-III	D-104		INTRODUCTION TO ENGG.(EE DEPT.) (SR)	INTRODUCTION TO ENGG.(ECE DEPT.) DM	ENGLISH (HR)	CHEMISTRY (SKS/RS)
SEC-IV	D-201		CHEMISTRY(SKS/RS)	PHYSICS (BAD)	ENGLISH (RC)	INTRODUCTION TO ENGG.(EE DEPT.) (SP)
SEC-I	D-101	DAY-9 (Tuesday) 13/8	MATHEMATICS(MB)	CHEMISTRY (SKS/RS)	PHYSICS (BAD)	INTRODUCTION TO ENGG.(CE DEPT.)
SEC-II	D-102		MATHEMATICS(SGH)	PHYSICS (BAD)	ENGLISH (HR)	INTRODUCTION TO ENGG.(ECE DEPT.) SM
SEC-III	D-104		ENGLISH (HR)	INTRODUCTION TO ENGG.(CSE DEPT.) (SSG)	CHEMISTRY (SKS/RS)	INTRODUCTION TO ENGG.(EE DEPT.) (SR)
SEC-IV	D-201		CHEMISTRY(SKS/RS)	ENGLISH (RC)	INTRODUCTION TO ENGG.(EE DEPT.) (SP)	INTRODUCTION TO ENGG.(CSE DEPT.) (SG)
SECTION	ROOM NO.	DAY / TIME	10.15AM-11.00AM	11.00AM-11.45AM	11.45AM-12.30PM	12.30PM-1.15PM
SEC-I	D-101	DAY-10 (Wednesday) 14/8	OBJECTIVE TYPE TEST	OBJECTIVE TYPE TEST	OBJECTIVE TYPE TEST	OBJECTIVE TYPE TEST
SEC-II	D-102		MATHEMATICS	PHYSICS	ENGLISH	CHEMISTRY
SEC-III	D-104		MATHEMATICS	PHYSICS	ENGLISH	CHEMISTRY
SEC-IV	D-201		MATHEMATICS	PHYSICS	ENGLISH	CHEMISTRY
			OBJECTIVE TYPE TEST	OBJECTIVE TYPE TEST	OBJECTIVE TYPE TEST	OBJECTIVE TYPE TEST
			MATHEMATICS	PHYSICS	ENGLISH	CHEMISTRY

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DETAILS ON TEACHER ALLOCATION FOR BRIDGE COURSE

COURSE NAME	Sl no.	Name of Faculty	Contact No.	Abbreviated Name
MATHEMATICS	1	Dr. Jayanta Dutta	9433469885	JD
	2	Dr. Debasmiti Bhattacharjee	8637590367	DB
	3	Mr. Soumendu Golui	9051144905	SG
	4	Dr. Samil Ghosh	8927884125	SGH
	5	Dr. Mandobi Banerjee	8902563770	MB
PHYSICS	1	Dr. Banani Adhikari (Das)	8617470795	BAD
CHEMISTRY	1	Dr. Susanta Kumar Saha	9434685675	SKS
	2	Dr. Rabindranath Singha	8972253384	RS
ENGLISH	1	Ms. Rimni Chakravarty	7679363235	RCV
	2	Mr. Rajeeb Chetri	8597773556	RC
	3	Mr. Hrishikesh Roy	8509297821	HR
INTRODUCTION TO ENGINEERING (Electrical Engineering)	1	Dr. Arup Das	9475673337	AD
	2	Mr. Subhajt Roy	9126082162	SR
INTRODUCTION TO ENGINEERING (CSE)	1	Anupam Mukherjee	94771754222	AM
INTRODUCTION TO ENGINEERING (CSE)	2	Saladal Chakraborty	9433471024	SC
INTRODUCTION TO ENGINEERING (CSE)	3	Dr. Avjit Bhowmick	9433354734	AB
INTRODUCTION TO ENGINEERING (CSE)	4	Sutapa Bhattacharya	9474764215	SB
INTRODUCTION TO ENGINEERING (IT)	1	Dr. Sirshendu Sekhar Ghosh	9955529117	SSG
INTRODUCTION TO ENGINEERING (IT)	2	Debaditya Kundu	9475140007	DK
INTRODUCTION TO ENGG. (CE DEPT.)	1	HOD Civil		
INTRODUCTION TO ENGG. (ECE DEPT.)	1	Dr. Manas Parai (MP)	9932770636	MP
INTRODUCTION TO ENGG. (ECE DEPT.)	2	Dr. Manas Saha (MS)	9474018456	MS
INTRODUCTION TO ENGG. (ECE DEPT.)	3	Ms. Anindita Sinha (AS)	9735081899	AS
INTRODUCTION TO ENGG. (ECE DEPT.)	4	Dr. Dia Ghosh (DG)	8250920974	DG
INTRODUCTION TO ENGG. (ECE DEPT.)	5	Dr. Sudip Ghosh (SG)	6297309721	SG
INTRODUCTION TO ENGG. (ECE DEPT.)	6	Dr. Debajyoti Misra (DM)	9749374055	DM
INTRODUCTION TO ENGG. (ECE DEPT.)	7	Ms. Sarmistha Mondal	9434212123	SM
INTRODUCTION TO ENGG. (CSE&AIML DEPT.)	1	Dr. Joydeep Dutta	9333541200	JDD

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Dr. Saha
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Siliguri Institute of Technology
Department of Engineering Sciences and Humanities
Physics Section
Syllabus of Physics for the proposed Bridge Course for AY 2024-25

Module	Topic	Content	Methodology	Lecture Hours
Basics of Physics	Objective Type Test		Test will be conducted in Pen and Paper to identify the learner's grasp on the subject.	01
1	Classical Mechanics	Rotational motion, Torque and angular momentum, Principle of moments (Moment of Inertia), Radius of Gyration	Smart Board and Chalk and talk	01
2	Mechanical Properties of Solids and Fluids	Elastic behaviors of solids, Hooke's Law, Young's Modulus, Shear Modulus, Bulk Modulus, Applications of Elastic behaviors of materials	Smart Board and Chalk and talk	01
3	Waves and Oscillations	TYPES OF WAVES, Superposition of Waves, Reflection and Refraction, Standing Waves and Normal Modes	Smart Board and Chalk and talk	01

4	Wave Optics	Interference of light, Photons	Smart Board and Chalk and talk	01
5	Atomic and Nuclear Physics	Atomic Theory by J. J Thompson, Atomic Theory by Ernest Rutherford, Atomic Theory by James Chadwick, Discovery of the Neutron, Bohr's Postulates	Smart Board and Chalk and talk	01
Basics of Physics	Term End Test Test		Test will be conducted in Pen and Paper to judge the progress on the subject.	01

Dr. Banani Adhikari (Das)
Subject Coordinator, Physics
DESH, SIT
29.07.2024

Department of Engineering Sciences & Humanities, Chemistry Section
 Bridge Course Curriculum & Lecture Plan: Odd Sem 2024

Module 1: Coordination Chemistry		
Lecture 1	Importance of coordination chemistry, Types of complexes, Classification of Ligands.	
Lecture 2	Crystal Field Theory to explain nature of bonding in octahedral complexes.	
Module 2: Organic Chemistry		
Lecture 3	Introduction to Reaction Mechanism: Carbocations: Generation, stability, reactions and applications in synthetic organic chemistry, Exercise.	
Lecture 4	Free Radicals: Generation, stability, examples and applications in synthetic organic chemistry, Exercise.	
Module 3: Thermodynamics and Equilibrium		
Lecture 5	Basic Concepts of Thermodynamics & 1st Law of Thermodynamics.	
Lecture 6	Concepts of Equilibrium & Acids Base Theory.	
Module 4: Electrochemistry		
Lecture 7	Electrochemical Cell.	
Lecture 8	Ionic Conductance.	
Module 5: Chemical Kinetics		
Lecture 9	Reaction Rate, Order and Molecularity of Reactions.	
Lecture 10	Differential & Integrated Rate Equation.	

Siliguri Institute of Technology

Department of Engineering Sciences and Humanities

Mathematics Section

Syllabus of Mathematics for the proposed Bridge Course for AY 2024-25

Module	Topic	Content	Methodology	Lecturer Hours
Basics of Mathematics	Objective Type Test		Test will be conducted in Pen and Paper to identify the learners grasp on the subject.	01
1	Set, Relations and Mapping	Set Theory: Definition and Representation Types of Sets Operation on Sets Relations: Definition Types of Relations Partial order and Equivalence Relations.	Lectures and Practice	01
		Functions: Definition and classification Types of functions Composition and Inverse of functions.	Lectures and Practice	01
2	Differential and Integral Calculus	Function: Limits, Continuity, Differentiability.	Lectures and Practice	01
		Riemann Integrals	Lectures and Practice	01
3	Matrices and Determinant	Types of Matrices, Operations on Matrices, Determinants and Cofactors, Inverse of a Square Matrix.	Lectures and Practice	01
		Rank of Matrix, Elementary row / column operations, System of Linear Equations.	Lectures and Practice	01

4	Differential Equations	Order, Degree, Formation of differential equations of first order, Differential Equations reducible to linear form, Exact Differential Equation.	Lectures and Practice	01
		Integrating factor, Differential equations of the first order but not of the first degree, Clairaut's equation, Initial value problem.	Lectures and Practice	01
Basics of Mathematics	Term End Test Test		Test will be conducted in Pen and Paper to judge the progress on the subject.	01



Dr. Jayanta Dutta
Subject Coordinator, Mathematics
DESH, SIT

Siliguri Institute of Technology
Department of Engineering Sciences and Humanities
Assessment Methodologies of the Bridge course for the Academic year 2024-25

A. Procedure for objective type test:

An objective type test will be conducted on the following subjects on the Day1 of the bridge course schedule to judge the learning level of the provisionally admitted B.Tech 1st year students for academic year 2024-25

1. Physics
2. Chemistry
3. Mathematics
4. Commutation skills

The other details of the objective type test are as follows:

Full Marks: 20

Duration: 30 Minute

B. Procedure for term end examinations:

At the end, term end examination will be held on the Day 10 of the bridge course schedule. The term end examination will be held on the following subjects

1. Physics
2. Chemistry
3. Mathematics
4. Commutation skills

The other details of the term end examinations are as follows:

Full Marks: 20

Duration: 30 Minute

C. Certificates:

1. Participation certificate will be issued to the aspirants who were participated in the bridge course for the academic year 2023-24.
2. Successfully completion certificate will be issued who secured at least 40% marks in aggregate in the term end examination on Day 10 and overall attendance is at least 75%.