

**Siliguri Institute of Technology**  
**Department of Engineering and Technology**

**Notification for Registration in the Bridge course for the AY 2023-24**

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 year 2023-24.

**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.

Interested candidates may register themselves through the link provided below:

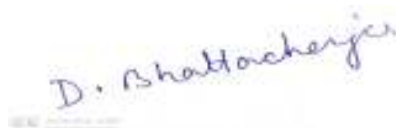
**Registration Link:**

[https://docs.google.com/forms/d/e/1FAIpQLSc4luwHnUvldOOX-Uvjbl85Zea-QiCAy47Kz\\_PmgnGZQcr1ww/viewform?usp=pp\\_url](https://docs.google.com/forms/d/e/1FAIpQLSc4luwHnUvldOOX-Uvjbl85Zea-QiCAy47Kz_PmgnGZQcr1ww/viewform?usp=pp_url)

Certificate will be issued to all the candidates after completion of the course.



**Dr. Jayanta Dutta**  
Associate Professor, DESH &  
Course Coordinator, Bridge Course, AY 2023-24  
Contact No. 9163636422



**Dr. Debasmriti Bhattacharjee**  
HOD, DESH, SIT

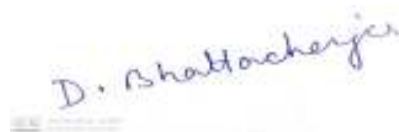
## **General Instructions**

The students coming to the college campus should strictly follow the 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 not create any chaos or confusion amongst others.
2. No any transportation facility will be provided to the students while coming to the college or while leaving.
3. The college does not provide any Fooding or Lodging, so no queries for the same will be entertained.
4. The students coming for the Bridge course will not be able to use the Canteen due to the 1<sup>st</sup> year protocol. No permission shall be given in any way to have food there.
5. **Reporting Time: 10.00 AM.**



**Dr. Jayanta Dutta**  
Associate Professor, DESH &  
Course Coordinator, Bridge Course, AY 2023-24  
Contact No. 9163636422



**Dr. Debasmriti Bhattacharjee**  
HOD, DESH, SIT



**SILIGURI INSTITUTE OF TECHNOLOGY**  
Department of Engineering Sciences & Humanities  
**ROUTINE FOR BRIDGE COURSE 2023-2024 (SEC-I, SEC-II & SEC-III)**

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	OBJECTIVE TYPE TEST	PHYSICS	ENGLISH	CHEMISTRY
SEC-II	D-201		MATHEMATICS	OBJECTIVE TYPE TEST	PHYSICS	ENGLISH
SEC-III	D-104		MATHEMATICS	OBJECTIVE TYPE TEST	PHYSICS	ENGLISH
			MATHEMATICS	OBJECTIVE TYPE TEST	PHYSICS	ENGLISH
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-2	PHYSICS (BAD)	MATHEMATICS(DB)	ENGLISH (RCV)	INTRODUCTION TO ENGG.(CSE DEPT.)
SEC-II	D-201		ENGLISH (HR)	PHYSICS (BAD)	MATHEMATICS(DB)	INTRODUCTION TO ENGG.(EE DEPT.)
SEC-III	D-104		MATHEMATICS(DB)	ENGLISH (RC)	PHYSICS (BAD)	CHEMISTRY (SKS/RS)
SEC-I	D-101		CHEMISTRY (SKS/RS)	PHYSICS (BAD)	MATHEMATICS(JD)	ENGLISH (RCV)
SEC-II	D-201	DAY-3	PHYSICS (BAD)	MATHEMATICS(SG)	CHEMISTRY (SKS/RS)	ENGLISH (HR)
SEC-III	D-104		MATHEMATICS(SGH)	CHEMISTRY (SKS/RS)	ENGLISH (RC)	PHYSICS (BAD)
SEC-I	D-101		CHEMISTRY (SKS/RS)	ENGLISH (RCV)	PHYSICS (BAD)	INTRODUCTION TO ENGG.(EE DEPT.)
SEC-II	D-201		ENGLISH (HR)	MATHEMATICS(MB)	CHEMISTRY (SKS/RS)	PHYSICS (BAD)
SEC-III	D-104	DAY-4	PHYSICS (BAD)	CHEMISTRY (SKS/RS)	MATHEMATICS(SGH)	INTRODUCTION TO ENGG.(ECE DEPT.)
SEC-I	D-101		ENGLISH (RCV)	MATHEMATICS(SGH)	CHEMISTRY (SKS/RS)	INTRODUCTION TO ENGG.(EE DEPT.)
SEC-II	D-201		CHEMISTRY (SKS/RS)	ENGLISH (HR)	PHYSICS (BAD)	INTRODUCTION TO ENGG.(CSE DEPT.)
SEC-III	D-104		PHYSICS (BAD)	CHEMISTRY (SKS/RS)	ENGLISH (RCV)	MATHEMATICS(JD)
SEC-I	D-101	DAY-5	INTRODUCTION TO ENGG.(ECE DEPT.)	CHEMISTRY (SKS/RS)	MATHEMATICS(MB)	ENGLISH (RCV)
SEC-II	D-201		CHEMISTRY (SKS/RS)	MATHEMATICS(SGH)	CHEMISTRY (SKS/RS)	INTRODUCTION TO ENGG.(CSE&AIML DEPT.)
SEC-III	D-104		PHYSICS (BAD)	CHEMISTRY (SKS/RS)	ENGLISH (RCV)	MATHEMATICS(MB)
SEC-I	D-101		PHYSICS (BAD)	CHEMISTRY (SKS/RS)	ENGLISH (RCV)	MATHEMATICS(MB)
SEC-II	D-201	DAY-6	PHYSICS (BAD)	INTRODUCTION TO ENGG.(IT DEPT.)	ENGLISH (RC)	PHYSICS (BAD)
SEC-III	D-104		CHEMISTRY (SKS/RS)	INTRODUCTION TO ENGG.(EE DEPT.)	MATHEMATICS(SG)	INTRODUCTION TO ENGG.(IT DEPT.)
SEC-I	D-101		PHYSICS (BAD)	INTRODUCTION TO ENGG.(EE DEPT.)	MATHEMATICS(SG)	INTRODUCTION TO ENGG.(IT DEPT.)
SEC-II	D-201		PHYSICS (BAD)	INTRODUCTION TO ENGG.(EE DEPT.)	MATHEMATICS(SG)	INTRODUCTION TO ENGG.(IT DEPT.)
SEC-III	D-104	DAY-7	PHYSICS (BAD)	MATHEMATICS(SG)	ENGLISH (RCV)	ENGLISH (RC)
SEC-I	D-101		MATHEMATICS(SG)	PHYSICS (BAD)	ENGLISH (RCV)	ENGLISH (RC)
SEC-II	D-201		PHYSICS (BAD)	MATHEMATICS(SG)	ENGLISH (RCV)	ENGLISH (RC)
SEC-III	D-104		PHYSICS (BAD)	MATHEMATICS(SG)	ENGLISH (RCV)	ENGLISH (RC)
SEC-I	D-101	DAY-8	MATHEMATICS(SG)	PHYSICS (BAD)	ENGLISH (RCV)	ENGLISH (RC)
SEC-II	D-201		PHYSICS (BAD)	MATHEMATICS(SG)	ENGLISH (RCV)	ENGLISH (RC)
SEC-III	D-104		PHYSICS (BAD)	MATHEMATICS(SG)	ENGLISH (RCV)	ENGLISH (RC)
SEC-I	D-101		PHYSICS (BAD)	MATHEMATICS(SG)	ENGLISH (RCV)	ENGLISH (RC)

27/07/2023

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SEC-III	D-104	DAY-8	INTRODUCTION TO ENGG.(EE DEPT.)	INTRODUCTION TO ENGG.(ECE DEPT.)	ENGLISH (RC)	CHEMISTRY SKS/RS
SEC-I	D-101	DAY-9	MATHEMATICS(MB)	CHEMISTRY (SKS/RS)	PHYSICS (BAD)	INTRODUCTION TO ENGG.(CE DEPT.)
SEC-II	D-201		MATHEMATICS(JD)	PHYSICS (BAD)	ENGLISH (HR)	INTRODUCTION TO ENGG.(ECE DEPT.)
SEC-III	D-104		ENGLISH (RC)	INTRODUCTION TO ENGG.(CSE DEPT.)	CHEMISTRY (SKS/RS)	INTRODUCTION TO ENGG.(EE DEPT.)

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	OBJECTIVE TYPE TEST		OBJECTIVE TYPE TEST	
			MATHEMATICS	PHYSICS	ENGLISH	CHEMISTRY
SEC-II	D-201		OBJECTIVE TYPE TEST		OBJECTIVE TYPE TEST	
			MATHEMATICS	PHYSICS	ENGLISH	CHEMISTRY
SEC-III	D-104		OBJECTIVE TYPE TEST		OBJECTIVE TYPE TEST	
			MATHEMATICS	PHYSICS	ENGLISH	CHEMISTRY

*[Signature]*  
27/07/2023  
Dr. Jayanta Dutta

Associate Professor, DESH &  
Course Coordinator, Bridge Course, AY 2023-24

*[Signature]*  
27/07/2023  
Dr. Debasmiti Bhattacharjee  
HOD, DESH, SIT

*[Signature]*  
Approved  
27/07/23

### 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. Samit Ghosh	8927884125	SGH	
	5	Dr. Mandabi 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	1	As Allotted by the Respective Department			
Electrical Engineering	2	Dr. Arup Das	9475673337	AD	
INTRODUCTION TO ENGINEERING (CSE)	1	Anupam Mukherjee	94771754222	AM	
INTRODUCTION TO ENGINEERING (IT)	4	Dr. Sirshendu Sekhar Ghosh	9955529117	SSG	



# Siliguri Institute of Technology

## Department of Engineering Sciences and Humanities

### Physics Section

#### Syllabus of Physics for the proposed Bridge Course for AY 2023-24

Module	Topic	Content	Methodology	Lecture Hours
<b>Basics of Physics</b>	<b>ObjectiveType Test</b>		Test will be conducted in Pen and Paper to identify the learner's grasp on the subject.	<b>01</b>
<b>1</b>	<b>Classical Mechanics</b>	Rotational motion, Torque and angular momentum, Principle of moments (Moment of Inertia), Radius of Gyration	Smart Board and Chalk and talk	<b>01</b>
<b>2</b>	<b>Mechanical Properties of Solids and Fluids</b>	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	<b>01</b>
<b>3</b>	<b>Waves and Oscillations</b>	TYPES OF WAVES, Superposition of Waves, Reflection and Refraction, Standing Waves and Normal Modes	Smart Board and Chalk and talk	<b>01</b>

<b>4</b>	<b>Wave Optics</b>	Interference of light, Photons	Smart Board and Chalk and talk	<b>01</b>
<b>5</b>	<b>Atomic and Nuclear Physics</b>	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	<b>02</b>
<b>6</b>	<b>Modern Physics</b>	Concepts of duality and matter, de-Broglie Hypothesis, Davisson Germer's Experiment.	Smart Board and Chalk and talk	<b>02</b>
<b>Basics of Physics</b>	<b>Term End Test Test</b>		Test will be conducted in Pen and Paper to judge the progress on the subject.	<b>01</b>

Banani Adhikari (Das)

**Dr. Banani Adhikari (Das)**  
**Subject Coordinator, Physics**  
**DESH, SIT**  
**14.07.2023**

Department of Engineering Sciences & Humanities, Chemistry Section  
Bridge Course Curriculum & Lecture Plan: Odd Sem 2023

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 2023-24

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	<b>Set, Relations and Mapping</b>	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	<b>Differential and Integral Calculus</b>	Function: Limits, Continuity, Differentiability.	Lectures and Practice	01
		Riemann Integrals	Lectures and Practice	01
3	<b>Matrices and Determinant</b>	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	<b>Differential Equations</b>	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

Humanities Section

English Syllabus for the proposed Bridge Course for AY 2023-24

Module	Topic	Content	Methodology	Lecture Hour
Basics of English	Objective Type Test		Test will be conducted in Pen and Paper to identify the learners grasp on the subject.	01
1	Grammar: Correction of Errors in Sentences 1	Sentence errors: Tenses and Speech – Direct and Indirect	Lecture and Practice	01
		Sentence errors: Noun - Pronoun Agreement	Lecture and Practice	01
2	Grammar Practice: Correction of Errors in Sentences 2	Sentence errors: Parallelism and Modals	Lecture and Practice	01
		Sentence errors: Subject – verb agreement	Lecture and Practice	01
3	Reading Comprehension 1	Strategies for Reading Comprehension (Practicing Non Technical Texts)	Lecture and Practice	01
		Practicing Descriptive/ Narrative Paragraphs	Lecture and Practice	01
4	Reading Comprehension 2	Practicing Analytical/ Argumentative paragraphs	Lecture and Practice	01
	Communicate in Person (The Power of Face to Face Connections)	Giving a short introduction to the class	Lecture on Pronunciation, voice modulation and clarity, body language while presenting	01
Basics of English	Term End Test		Test will be conducted in Pen and Paper to identify the learners grasp on the subject.	01

**Siliguri Institute of Technology**  
**Department of Electrical**  
**Introduction to Engineering-Electrical Engineering**  
**Syllabus of Electrical Engineering for the proposed Bridge Course for AY 2023-24**

**Date: 20.06.2023**

Module	Topic	Content	Methodology	Lecture Hours
1	Current Electricity	Resistance, Inductance, Capacitance, AC-DC, Power, Power Factor, Ohm's Law	Lectures and Practice	01
		KCL and KVL, Loop Analysis, Magnetic Effects of Current and Magnetism	Lectures and Practice	01



Dr. Arup Das  
HOD  
Department of Electrical Engineering  
Siliguri Institute of Technology



# **SILIGURI INSTITUTE OF TECHNOLOGY**

## **DEPARTMENT OF CIVIL ENGINEERING**

### **CIVIL ENGINEERING SECTION**

#### **SYLLABUS OF CIVIL ENGINEERING FOR THE PROPOSED BRIDGE COURSE FOR AY 2023-24**

<b>Module</b>	<b>Topic Content</b>	<b>Methodology</b>	<b>Lecturer Hours</b>
1	1. Basic of Civil Engineering 2. Measurement techniques	Lectures and Practice	1
2	1. Introduction to Civil Engineering drawing & Basics of AUTOCAD 2. Lab visit of Civil Engineering department	Lectures and Practice	1

**Siliguri Institute of Technology**  
**Department of Engineering Sciences and Humanities**  
**Assessment Methodologies of the Bridge course for the Academic year 2023-24**

**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 1<sup>st</sup> year students for academic year 2023-24

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

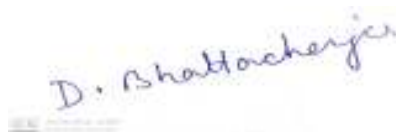
Duration: 30 Minute

**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 whose overall attendance is at least 75%.



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HOD, DESH, SIT