



TURA GOVERNMENT COLLEGE
DEPARTMENT OF CHEMISTRY
DISTRIBUTION OF SYLLABUS FOR THE YEAR 2023-24

FIRST SEMESTER

CHE-100 INTRODUCTORY CHEMISTRY-I Part A-THEORY
INORGANIC CHEMISTRY-I

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Bithingkon G. Momin	I	(a) Structure of Atom
2. Vicky Trona A. Sangma	I	(c) Chemical Periodicity
	I	(a) Chemical Bonding-I

ORGANIC CHEMISTRY-I

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Pynsakhiat Miki Gashnga	II	(a) Nomenclature, Structure, Bonding & Properties
2. Saljagring R. Sangma	II	(a) Alkanes and Cycloalkanes (b) Alkenes and Alkynes

PHYSICAL CHEMISTRY-I

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Kiewshaphrang Kharnaioir	III	a) State of Matter: i) Gaseous States-I ii) Liquid States-I
2. Donme L. A. Sangma	III	(a) Solid State-I (b) Chemical Kinetics-I

Part B- PRACTICAL

UNIT-IV: LABORATORY WORK (INORGANIC)

NAME OF THE TEACHERS:	1. Bithingkon G. MomiN
	2. Vicky Trona A. Sangma

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THIRD SEMSESTER

Chem EH 301 Part A-THEORY

SECTION I (INORGANIC)

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Bithingkon G. Momin	II	d- and f-Block Elements, Preparation, reaction, structure and use of d- and f-block compounds
2. Vicky Trona A. Sangma	I	s- and p-Block Elements, Preparation, reaction, structure and use of s- and p-block compounds

SECTION II (ORGANIC)

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Pynsakhiat Miki Gashnga	IV	(a) Carboxylic Acids and Their Derivatives (c) Active Methylene Compounds (b) Organometallic Compounds-I
2. Saljagring R. Sangma	V	(a) Nitro Compounds (Aliphatic and Aromatic) (b) Amines (Aliphatic and Aromatic) (c) Diazo Compounds

SECTION III (PHYSICAL)

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Kiewshaphrang Kharnaioir	VI	(a) Thermodynamics-II (b) Chemical Equilibrium
2. Donme L. A. Sangma	VII	(a) Dilute Solutions (b) Colloids

Chem EH 301 Part B-PRACTICAL
LABORATORY COURSE (INORGANIC LC-I)

NAME OF THE TEACHERS:	1. Bithingkon G. Momin
	2. Vicky Trona A. Sangma

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FIFTH SEMESTER

Chem H 501
INORGANIC CHEMISTRY-V

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Bithingkon G. Momin	I	(a) Molecular Symmetry
	II	(a) Complexometric Titration (b) Error Analysis (c) Organic Reagents in Inorganic Analysis
2. Vicky Trona A. Sangma	III	Nucleus and Radioactivity-II
	IV	Crystal Field Theory (CFT)
	V	Magnetochemistry

Chem H 502
ORGANIC CHEMISTRY

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Isaac W. Momin	III	(b) Rearrangements
	IV	(a) Heterocyclic Compounds-II (b) Green Chemistry
2. Pynsakhiat Miki Gashnga	I	(a) Polynuclear Aromatic Hydrocarbons (b) Peptides, Proteins and Vitamins
	III	(a) Introduction to Organic Synthesis
3. Saljagring R. Sangma	II	(a) Organic Stereochemistry-II (b) Introduction to Dienes (c) Polymers
	IV	(c) Inorganic Reagents in Organic Synthesis

Chem H 503
PHYSICAL CHEMISTRY

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Donme L. A. Sangma	II	Physical Properties and Molecular Structure
	III	Solid State-II
2. Kiewshaphrang Kharnaioir	I	Gaseous State-II
	IV	Chemical Kinetics-II
	V	Molecular Spectroscopy

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Chem H 504
PART A- PRACTICAL
LABORATORY COURSE (ORGANIC LC-II)

NAME OF THE TEACHERS:	1. Saljagring R. Sangma
	2. Pynsakhiat Miki Gashnga

Chem H 504
PART B- PRACTICAL
LABORATORY COURSE (PHYSICAL LC-II)

NAME OF THE TEACHERS:	1. Donme L. A. Sangma
	2. Kiewshaphrang Kharnaioir

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SECOND SEMESTER

CHE-150 INTRODUCTORY CHEMISTRY-II Part A- THEORY

INORGANIC CHEMISTRY-II

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Bithingkon G. Momin	I	(a) Nucleus and Radioactivity:
2. Vicky Trona A. Sangma	I	(b) Acid-Base Concept
		(a) Redox Reactions

ORGANIC CHEMISTRY-II

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Saljagring R. Sangma	II	b) Aromatic Hydrocarbons and Aromaticity: (c) Nucleophilic Substitution Reactions (d) Elimination Reactions
2. Dr. Pynsakhiat Miki Gashnga	II	(a) Organic Stereochemistry-I:

PHYSICAL CHEMISTRY-II

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Donme L. A. Sangma	VI	(a) Thermochemistry (b) Adsorption and Surface Phenomena
2. Dr. Kiewshaphrang Kharnaioir	V	(a) Thermodynamics-I

Part B- PRACTICAL

UNIT IV: LABORATORY WORK (ORGANIC)

NAME OF THE TEACHERS:	1. Saljagring R Sangma
	2. Dr. Pynsakhiat Miki Gashnga

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FOURTH SEMESTER

Chem EH 401 Part A- THEORY
SECTION I (INORGANIC)

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Bithingkon G. Momin	I	(a) Organometallic Chemistry-I (b) Inorganic Polymers (c) Interhalogens, Polyhalides and Pseudohalides
2. Vicky Trona A. Sangma	II	Coordination Chemistry

SECTION II (ORGANIC)

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Saljagrang R. Sangma	III	(a) Carbohydrates (c) Urea
	IV	(c) Dyes
2. Dr. Pynsakhiat Miki Gashnga	III	(b) Amino Acids (d) Drugs
	IV	(a) Heterocyclic Compounds-I (b) Fats, Oils, Soaps and Detergents

SECTION III (PHYSICAL)

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Donme L. A. Sangma	VI	(a) Electrochemistry-II (b) Phase Equilibria
2. Dr. Kiewshaphrang Kharnaioir	V	(a) Ionic Equilibrium (b) Electrochemistry-I

Chem EH 401 Part B-PRACTICAL
LABORATORY COURSE (INORGANIC LC-II)

NAME OF THE TEACHERS:	1. Bithingkon G. Momin
	2. Vicky Trona A. Sangma

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SIXTH SEMESTER

Chem H 601
INORGANIC CHEMISTRY-VI

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Bithingkon G. Momin	I	Organometallic Chemistry-II
	II	Bioinorganic Chemistry
2. Vicky Trona A. Sangma	III	Spectroscopic Methods in Inorganic Chemistry
	IV	Reactivity of Coordination Compounds
	V	Nanomaterials

Chem H 602
ORGANIC CHEMISTRY-VI

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Saljagring R. Sangma	II	Organic Photochemistry
	I	(a) Natural Products
	I	(b) Topics in Biological Chemistry
2. Dr. Pynsakhiat Miki Gashnga	IV	(a) Ultraviolet and Visible Spectroscopy (b) Infrared Spectroscopy (c) Nuclear Magnetic Resonance Spectroscopy (d) Mass Spectrometry
	III	Pericyclic Reactions

Chem H 603
PHYSICAL CHEMISTRY-VI

NAME OF THE TEACHER	UNIT	NAME OF THE UNIT
1. Donme Lizana A. Sangma	II	Electrochemistry-III
	III	Elementary Quantum Mechanics
2. Dr. Kiewshaphrang Kharnaioir	I	Thermodynamics-III
	IV	Boltzmann Distribution

Chem H 604
PART A- PRACTICAL
LABORATORY COURSE (INORGANIC LC-III)

NAME OF THE TEACHERS:	1. Bithingkon G. Momin
	2. Vicky Trona A. Sangma

Chem H 604
PART B- SEMINAR

NAME OF THE TEACHERS:	1. Bithingkon G. Momin
	2. Dr. Kiewshaphrang Kharnaioir

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