



ST. GREGORIOS COLLEGE KOTTARAKARA

7.2.1 :

**Best Practice II : Bridge
Course**



Criteria VII

BEST PRACTICE II

1. Title of the Practice: BRIDGE COURSE

2. Objectives of the Practice:

- To give a firm foundation and a level academic background in the fundamental subjects so that students do not face any trouble when college classes begin
- To overcome any transitional difficulties that students may encounter in advancing from pre-university to university level

3. The Context:

Students often feel unsure of their own academic proficiency when transitioning from higher secondary to university level learning. The courses are planned and executed in order to provide students with confidence in their knowledge and abilities. They further help create a good rapport between students and teachers.

4. The Practice:

Before the commencement of the first semester classes the bridge course (4 hours) is conducted. In the academic year 2020-21, bridge course classes started on 12 Oct 2020, with a time-table and syllabus.

5. Evidence of Success:

Students found it much easier to keep up with the university syllabus. It boosted rapport and teaching-learning comfort among students and faculty.

6. Problems Encountered and Resources Required

Due to the late processing of new admissions by the University owing to unforeseeable reasons, there is a severe strain on time in the first semester.

REPORT

The department of Zoology could effectively implement the bridge course within the stipulated time schedule. All the topics mentioned in the syllabus were successfully completed. Above all the faculty could interact with the students and their queries were cleared.

It helped to create a good rapport between the students and the faculty.

Through this programme students were made aware of the whole curriculum and university examination procedures. Thus the programme could create an interest among the students and they were very well motivated towards the subject.




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DEPARTMENT OF ZOOLOGY,
ST.GREGORIOS COLLEGE, KOTTARAKARA

BRIDGE COURSE: 2020-2021 {BSC COMPLEMENTARY}

Name of the tutor: Dr.Rani.S.Dharan

Total lecture hours: 4 hrs

Syllabus: Introduction to Zoology


General characteristics and classification of different classes of vertebrates & Invertebrates

DEPARTMENT OF ZOOLOGY

TIME TABLE 2020-2021

TIME TABLE (I & II SEM BOTANY)					
Day	1	2	3	4	5
Monday					
Tuesday					
Wednesday	Bridge Class (14-10-2020)				
Thursday					Bridge Class (15-10-2020)
Friday		Bridge Class (16-10-2020)	Bridge Class (16-10-2020)		




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REPORT

The department of English completed the requisite bridge course portions within the stipulated time schedule. The doubts of students were cleared, and the common errors they make were rectified.

Students revealed the topics on which they were weak, and tips for excelling in that topic were provided.

Students were given an awareness of the university examination procedures and a brief overview of the curriculum. The programme helped students learn how to improve their writing skills, especially with regards to writing in examinations, and the common grammatical errors to avoid in writing.




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DEPARTMENT OF ENGLISH

ST.GREGORIOS COLLEGE, KOTTARAKARA

BRIDGE COURSE: 2020-2021 BA English & Communicative English

Name of the tutor: Reshma Elizabeth Jacob

Total lecture hours: 4 hrs

Syllabus: Basics of Grammar

(Remedial Exercises on Common Grammatical Errors)

DEPARTMENT OF ENGLISH

TIME TABLE 2020-2021

TIME TABLE (I SEM ENGLISH)					
Day	1	2	3	4	5
Monday					
Tuesday					
Wednesday	Bridge Class (14-10-2020)				Bridge Class (14-10-2020)
Thursday				Bridge Class (15-10-2020)	
Friday			Bridge Class (16-10-2020)		




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Bridge Course Syllabus (for students of B.Sc-Chemistry Core)

Program Educational Objectives:

- To produce efficient science graduates with strong fundamentals in various fields of chemistry
- To understand the structure of atom and its related properties
- To evaluate how the inner structure of elements dictates the chemical properties of elements and also understand how the elements are arranged in the periodic table and the properties and application of s -block elements, hydrogen and their compounds.
- To familiarize the theoretical aspects of acids bases and non-aqueous solvents.
- To understand the Overview of impact of man on environment.
- To make students capable to access and relate issues to environmental and practice it with integrity and ethics.

Module I- Atomic Structure and Periodicity (6 hrs).

Discovery of electron, proton and neutron; atomic number, isotopes and isobars. Thompson's model and its limitations, Rutherford's model & Bohr's model and its limitations, concept of shells and subshells, concept of orbitals, quantum numbers, shapes of s, p and d orbitals, rules for filling electrons in various orbitals.

Module II-Hydrogen (6hrs)

Position of hydrogen in periodic table, occurrence, isotopes, preparation, properties and uses of hydrogen; hydrides – ionic, covalent and interstitial; physical and chemical properties of water, heavy water; hydrogen peroxide-preparation, reactions, use and structure; hydrogen as a fuel.

Module III-S-Block Elements (9hrs)

Group 1 and Group 2 elements: General introduction, electronic configuration, occurrence, anomalous properties of the first element of each group, diagonal relationship, trends in the variation of properties (such as ionization enthalpy, atomic and ionic radii), trends in chemical reactivity with oxygen, water, hydrogen and halogens; uses.

Module IV -Acids, Bases and Non Aqueous Solvents (6hrs)

Acids & Bases. ionization of acids and bases, strong and weak electrolytes, degree of ionization, ionization of polybasic acids, acid strength, concept of pH., Hydrolysis of salts (elementary idea). Classification of solvents.

Module V - Environmental Chemistry – Air, Water and Soil Pollution 9 hrs.

Environmental pollution – Air, water and soil pollution, chemical reactions in atmosphere, smogs, major atmospheric pollutants; acid rain, ozone and its reactions, effects of depletion of ozone layer, greenhouse effect and global warming – pollution due to industrial wastes; green




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chemistry as an alternative tool for reducing pollution, strategy for control of environmental pollution.



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BRIDGE COURSE

The Department offers bridge courses for all the first semester students who are admitted to the bachelor programmes. As per the instructions of the IQAC, these courses were implemented w.e.f 19.07.2018. These bridge courses are carefully designed to ease the beginners their transfer from pre-university to university education.

Course objectives

- To give a sufficient establishment in the fundamental subjects, with the goal that students do not confront any trouble when the college classes start.
- This course gives students a superior progress stage to set by themselves up before the beginning of the primary semester.
- To overcome any barrier between subjects learned at the pre-university level and University level.

Course Duration

The Bridge course for the newly admitted students is conducted every year, before the commencement of the first semester classes. The Course duration is only 4 hrs

Course outcome

- The students are provided with the confidence to successfully transition from higher secondary level to university level learning
- The students could get familiarized with the college and its various practices
- Helps to develop a supportive learning community
- Helps to develop critical thinking ability
- Helps to create a good rapport between students and the faculty members.

Bridge Course Syllabus (Complementary)

Program Educational Objectives:

- To produce efficient science graduates with strong fundamentals in various fields of chemistry




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- To understand the structure of atom and its related properties
- Acquire a skill for safe handling of chemicals, apparatus and instrument
- Evaluate different types of concentration units
- To understand the Overview of impact of man on environment.
- To make students capable to access and relate issues to environmental and practice it with integrity and ethics

Module 1 : Structure of Atom

Bohr model and its limitation, concept of Shells and subshells, dual nature of matter and light, de Broglie relationship, Heisenberg Uncertainty Principle, concept of orbitals, quantum numbers, shapes of S, P, d and f orbitals.

Module 2: Chemical Bonding

Valence electrons, ionic bond, covalent bond, bond parameters, Lewis structure, polar character of covalent bond, covalent character of ionic bond, VSEPR theory, concept of hybridization


Module 3: Analytical Principles

Principles of volumetric analysis: Terms used in volumetric analysis, primary and secondary standard substance, standardization of solutions. Concentration Unit: ppm, molality, formality, molarity, mole fraction, normality, weight percent and volume percent.

Module 4: Environmental Chemistry

Impact of man on environment- an overview of urbanization and bio diversity. Environmental pollution- Air, water and soil pollution, chemical reactions in atmosphere, smog, major atmospheric pollutants: acid rain, ozone and its reactions.




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REPORT

The department of Botany could effectively implement the bridge course within the stipulated time schedule. The academic year 2020-21, the classes started on 12/10/2020. The classes started on 12/10/2020, all the topics mentioned in the syllabus were successfully completed. Above all the faculty could interact with the students and their queries were cleared. It helped to create a good report among the students and the faculty.

Through this programme students were made aware of the whole curriculum and university examination procedures. Thus the programme could create an interest among the students and they were very well motivated towards the subject




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DEPARTMENT OF BOTANY, ST.GREGORIOS COLLEGE,KOTTARAKARA

BRIDGE COURSE :2020-2021 {BSC CORE}

Name of the tutor : Dr Lekshmi.G.M

Total lecture hours : 4 hrs

Syllabus : Scope and relevance of studying botany

Parts of compound microscope, Parts of simple microscope

Introduction - Angiosperms, Economic botany and Ethnobotany

DEPARTMENT OF BOTANY

TIME TABLE 2020-2021

Day	Class	1	2	3	4	5
MON. 12-10-2020	D3					
	D2					
	D1			D1 BOT		
TUE. 13-10-2020	D3					
	D2					
	D1		DI BOT	D1 BOT		
WED 14-10-2020	D3					
	D2					
	D1				D1 BOT	
THU. 15-10-2020	D3					
	D2					
	D1					
FRI 16-10-2020	D3					
	D2					
	D1					



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