



W.M.O ARTS & SCIENCE COLLEGE MUTTIL

BRIDGE COURSES 2021-2022

DEPARTMENT OF ARABIC
2020-2021
SYLLABUS OF BRIDGE COURSE

UG

About the Course:

Bridge courses can be considered as **supplementary knowledge** that can be provided to students to **impart basic knowledge** about the subjects. It is also can be considered as valuable information and a preparatory course that can be given to students to confer fundamental information about the subjects that will be educated. The main objective of the course is to bridge the gap between the students and subjects they joined. A bridge course may lead a person to ensure that he has a basic knowledge of the course that will guide him.

The designed syllabus will definitely useful to students to overcome the barriers for their scholastic career. This course serves our students as a cradle for the new path. Before beginning the main course, it will equip students with beneficial information in their further learning.

Aim and Objectives

- To bridge the gap between the students and subject
- Give students the confidence to pursue with the course
- Providing the students with the necessary skills and knowledge about the topics that will be covered in their new courses.
- Establishing a stronger foundation in fundamentals of the topic
- This course gives more progress to students before the beginning of official classes.
- To overcome any barrier between subjects learned at the pre-college level and subjects they would concentrate on BA level.
- This Bridge course goes about as a cradle for the new passage
- This Bridge courses provide an adequate foundation in the course. Hence students do not face any difficulties when college programs begin. This course offers a superior growth stage for students to get themselves up before starting the first semester.

Module-I: Basic Awareness on Arabic Language

- An over view on Arabic Language
- Familiarizing Arabic Alphabets
- Enhancement of reading ability
- Basic Writing methods

Module-II: Salient Features of Arabic Language

- Arabic Language in Various Period
- Arabic Studies in Kerala
- Eminent Arabic Writers in Kerala
- Arabic Study Centers in Kerala

Module-III: Basic Arabic Grammar

- Fundamentals of Verbs
- Methods of Sentence Making
- Tens and it's Forms
- Vocabulary Building

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Aims and Objectives

- Give students the confidence to successfully transition to college and new curriculum.
- To develop academic skills and assist the students in Arabic Language and Literature
- To raise the level of understanding of students in Subject.

Total Hours: 15 Hours

Module I: Expressions and Terminology in Arabic

- Journalistic Expressions
- Commercial Terms
- Political Terms
- Medical Expression and Terms

Module II: Modern Trends in Arabic Literature

- Neo-Classism
- Realism
- Structurism
- Symbolism

Module III: Modern Movements in Arabic Literature

- Mahjar Movement
- Apollo Movement
- Rabitha al Kalamiya
- Al Usba al Undulusia

Module IV: Arabic Language in India

- Major Arabic Study Centres in India
- Major Arabic Journals in India
- Major Arabic Recourses in Language
- Eminent Arabic Schoolers in India

DEPARTMENT OF COMMERCE (COMPUTER
APPLICATION)

2020-2021

SYLLABUS FOR BRIDGE COURSE

Basics of Accounting

Objectives

The main objective of the course is to bridge the gap between subjects studied at Pre-university level and subjects they would be studying in Graduation.

Syllabus

Introduction to accounting – accounting principles; accounting concepts and conservatives – double entry system of accounting – journal – ledger – subsidiary books; cash books – petty cash book – bank reconciliation statements – bills of exchange – journal proper – trial balance – reconciliation of errors – financial statements for final accounts.

Total hours: 10 hours

DEPARTMENT OF
COMMERCE(COOPERATION)

2020-2021

SYLLABUS FOR BRIDGE COURSE

A bridge course for newly admitted students is conducted every year before the commencement of the first semester classes

Object:

To bridge the gap between studied at higher secondary level and subjects they would be studying in graduation.

Syllabus

Module I

Introduction to accounting- meaning –uses- applications of accounting- systems of accounting- single entry and double entry system – basis of accounting – accounting standards-accounting equation –rules of debit and credit –journal – ledger- trial balance- financial statements-

Module II

Business- meaning- purpose- management-meaning- scope- principles of management-staffing – directing and controlling

DEPARTMENT OF CHEMISTRY
2020-2021
SYLLABUS FOR BRIDGE COURSE

Introduction to General Chemistry

Objectives:

The purpose of a bridge course is to help students transition from high school to college by developing their academic skills and knowledge in chemistry, writing, reading and science. It is a unique compilation which deals with those concepts in particular, that forms the basis of much higher concepts of chemistry syllabus.

Syllabus:

Introduction to physical chemistry -concerned with the applications of the techniques and theories of physics to the study of chemical systems. **Introduction to organic chemistry**-study the structure, properties, composition, reactions and preparations of carbon containing compounds. **Introduction to inorganic chemistry** -study the compounds that do not contain carbon. Introduction to periodic table elements and their properties-a table of the chemical elements arranged in the order of atomic number, usually in rows, so that elements with similar atomic structure appear in vertical columns.

DEPARTMENT OF COMPUTER APPLICATION
2020-2021
SYLLABUS FOR BRIDGE COURSE

Complementary

Introduction to Computer and office automation (30- hours)

Syllabus

Unit	Topic	Hour
1	Introduction to computer generation, Types of computer	6
2	Basics of Digital and Analog signals Fundamentals of Digital signals.	6
3	Introduction to open office, Different office tools in Linux and Windows.	6
4	Basics of Microsoft Excel and Word	6
5	Practical Session for creating Enhanced slides in MS Powerpoint.	6

Accounting Foundation for beginners. (12- hours)

Syllabus

Unit	Topic	Hour
1	Accounting Principles	2
2	Cash Book	2
3	Basics of Journalizing	2
4	Basics of Posting	3
5	Final Accounting	3

Mathematical Foundation for beginners. (12- hours)

Syllabus

Unit	Topic	Hour
1	Introduction to Set Theory	2
2	Limit and continuity	2
3	Basics of Functions	2
4	Basics of Differentiation	3
5	Basics of Integration	3

DEPARTMENT OF ECONOMICS
2020-2021
SYLLABUS FOR BRIDGE COURSE

BASIC MATHEMATICS AND STATISTICS FOR ECONOMICS

Module I : Mathematics

- Number system- Integers, real, rationals, irrationals
- Basic operations-
addition, subtraction, multiplication, division Equations
- simple, quadratic, simultaneous
- Exponents - multiplication, division and power
rules Set theory - definition, types, operations
- Matrices -
definition, types, equality, addition, subtraction Graphs -
lines, curves
- Differentiation - standard results, problems with simple functions

Module II : Statistics

- Definition, collection, classification, tabulation.
Presentation - graphs and diagrams.
- Analysis - methods, measures and tools
- Measures - central tendency, dispersion, skewness, kurtosis.
Introduction - Correlation and regression, index numbers, time
series. Population, sample, Census, sampling and its methods.

Module III : Introduction of Softwares used for statistical data processing.

- MS Office spreadsheet/Open office
calc, R, SPSS, Python, Latek

DEPARTMENT OF ELECTRONICS
2020-2021
SYLLABUS FOR BRIDGE COURSE

LED Assembling and Repairing

Module 1: Basics of Electronics & LED

- Basic of Electronic Components & Electricity
- Surface Mount Components
- Basic Electric Components
- Manual Soldering
- LED Basics
- Basic Parameters of LED
- LED Power Sources
- Thermal management of LED
- LED Configuration

Module 2: LED Luminary Assembly

- LED Luminary Assembly
- Components of LED Luminary
- Product Assembly Instruction

Module 3: LED Luminaire Design

- Selection of LED Driver
- Thermal Management

Module 4: Diagnose & Repair Fault in LED Light

- Diagnose & Repair Fault in LED Light
- Diagnose and Repair Fault in LED Driver
- Trouble Shooting & Rectification of LED

HOUSE WIRING TECHNIQUES

- Properties of popular conductors & Insulators.
- Voltage Current Power Energy concepts & relations.
- Basic principles of generation of electricity.
- Various Techniques of electrical energy Generation.
- Measuring Equipment's in the electrical Field in Brief Wireman safety and equipment safety
- Commercial Distribution of electric energy.
- Transformer, Electrical distribution methods brief ideas.
- Types of wiring in brief
- Wires and cables selection in house wiring.
- Load, watts , safety measures
- Simple drawing concepts on house wiring
- Boq preparation
- Main switch boards, sub switch boards ,
- Permissible load, MCB, MCCB ISOLATOR
- Conduits (Open and concealed) , and earthing ; need of earthing
- Earthing techniques and measurements
- Different kind of wiring connections, 1 way 2 way series parallel etc. and testing of wiring.

DEPARTMENT OF ENGLISH
2020-2021
SYLLABUS FOR BRIDGE COURSE

Department Of English Offers Bridge Course to the first-year students in order to assimilate with higher education system. It primely focuses on communication skills, soft skills and basic awareness of collegiate education. This course is designed for 15 hours in which three modules have to be covered.

Total Hours: 15 Hours

Theory: 10 Hours

Practical: 5 Hours

Aims and Objectives

- To develop students' sense of understanding, appreciation and ability of expression
- To understand the basics of higher education system and modes of communication
- To develop soft skill and personality traits among students

Module 1 :Basic Grammar

- Parts of speech and sentence
- Fundamentals of Verb
- Tense, Tense forms and applications
- Subject Verb agreement (Concord)
- Vocabulary Building
- Phrasal verb
- Question Tag
- Active and Passive Voice
- Module 2 (Soft Skills)
- Inter Personal Skills, Emotional Skill and Public Skills
- Critical Thinking and Problem Solving
- Interviews and Group Discussion
- Module 3 (Higher Education)
- Modes of Higher Education
- Basic Awareness of Collegiate Education

Module 2 :Soft Skills

- Inter Personal Skills, Emotional Skill and Public Skills
- Critical Thinking and Problem Solving
- Interviews and Group Discussion

Module 3 :Higher Education

- Modes of Higher Education
- Basic Awareness of Collegiate Education

COMMUNICATIVE ENGLISH

MODULE 1 – ENGLISH FOR COMMUNICATION

- Communication and Language.
- English as a Global Language.

MODULE 2 – PRIMARY SKILLS LISTENING

- Listening to a Conversation.
- Listening to a Speech.
- Listening to a Lecture.
- SPEAKING
- Greeting
- Thanking
- Requesting
- Enquiring
- Reporting
- Permission

READING

- Reading News Reports
- Reading Advertisements.
- Reading Official Letters, Official Documents and Official Profiles.
- Reading Online Content.
- Reading Poems.
- Reading Essays.

WRITING

- Writing Sentences
- Writing Email
- Writing Resumes and Cover Letters.
- Making Notes.

MODULE -3 GRAMMAR

- Word Class
- Subject – Verb – Agreement
- Tenses
- Articles and Prepositions

- Phrases, Clauses and Sentence
- Voices
- Idioms
- Question Tags
- Direct And Indirect Speech.
- Simple , Complex, and Compound

MODULE -4 PRONUNCIATION

- Topics for Spontaneous Speech
- Introduction to Phonetics
- Vowels and Consonants
- Received Pronunciation

DEPARTMENT OF MASS COMMUNICATION AND JOURNALISM

2020-2021

Syllabus of bridge course

INTRODUCTION

BASIC COURSE:

The Department of Mass communication & Journalism, WMO college of Arts and Sciences, Muttil, offers a Bridge course for the students of first year B.A Mass communication. It is a 5 day-long course taking 4 hours each day. Scheduled into three different modules, it has been offered as a regular program since its introduction in the academic year 2018. The course primarily helps a student to unlearn and relearn her student life or student-ship. The teacher/trainer acts as a facilitator cum mentor helping the students to get familiar with the course, the new educational atmosphere she lands in to, and the quite unfamiliar pedagogy adopted by the higher education sector in the country. Along with other timely accompaniments, the course is largely conceived of three basic modules.

These three need-based-modules facilitate a student in terms of her self-learning and introduce her to the culture of 'the scholarship' and 'higher education'. Thus, the Bridge course proves to be the best opportunity for a student to adapt herself to the academic and social environment, which is often new for her.

OBJECTIVES

It is conceived and offered exclusively for the newly admitted students in the department in their first two weeks in the campus. Each year, the course is successfully conducted before the department gets full-fledged to bridge the candidates all set and ready for the regular course hours. Hence, It functions as a bridge, and pre-course as well, to the three-year regular and hectic course, provided by the department. Its major objectives are:

- to introduce the newly admitted students to the department and course of Mass communication,
- to give an opportunity to freely interact with the available faculties of the department,
- to facilitate and bridge the gap between school and college level in terms of learning, academics and pedagogy; and
- to ensure the students get to know the basics of media both as a course and as a profession, and
- to familiarize the students with the media field of their respective interest.

MODULES

- 1) the 'Department' and the 'Discipline',**
- 2) Higher education: General structure and Pedagogy, and**
- 3) The Course Basics.**

DEPARTMENT OF MATHEMATICS
2020-2021
Syllabus of Bridge Course

UG -FIRST SEMESTER

Duration : 12 Hours

- 1. Basic Arithmetic - Addition of rational numbers, Multiplication of rational numbers & division of rational numbers**
- 2. Function - Definition and Basic properties**
- 3. Trigonometric functions - Identities and properties**
- 4. Quadratic equation solving**
- 5. Polynomial function**
- 6. Limits**
- 7. Differentiation**
- 8. Integration**
- 9. Basic geometry - Slope of a line shapes, area, volume and surface area of solids**
- 10. Fundamentals of graph - Graphing in cartesian coordinate**
- 11. Linear inequalities**
- 12. Matrices - Basic properties**

UG-COMPLEMENTARY MATHEMATICS

Duration : 12 Hours

Topics

- 1. Basic Arithmetic - Addition of rational numbers, Multiplication of rational numbers & division of rational numbers**
- 2. Functions - Definition and Basic properties**
- 3. Trigonometric functions - Identities and properties**
- 4. Quadratic equations and solutions**
- 5. Polynomial functions**
- 6. Limits and continuity of functions**
- 7. Differentiation**
- 8. Integration**
- 9. Basic geometry - Slope of a line, area, volume and surface area of solids**
- 10. Fundamentals of graph - Graphing in cartesian coordinates**
- 11. Linear inequalities**
- 12. Matrices - Basic properties**

Note : In addition to the sessions on the above topics, two entry level tests will be conducted to assess the level of students and necessary measures will be taken.

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Duration: 20 hour

SYLLABUS

1. ALGEBRA

Groups, Subgroups, Cyclic groups, Rings, Fields

2. LINEAR ALGEBRA

Vector space, Subspace, Basis, Dimension, Rank-Nullity theorem

3. REAL ANALYSIS

Sequence and Series of real numbers, Open and Closed sets , Continuous functions, Riemann integral

4. GRAPH THEORY

Graph, Trees, Planar graphs , eulerian graphs

5. NUMBER THEORY

GCD, Tau and Sigma functions, Linear Congruence, Division algorithm

Note : In addition to the sessions on the above topics, special sessions will be arranged on “Opportunities and challenges of Higher education in Mathematics”

DEPARTMENT OF SOCIAL WORK
2020-2021
Syllabus of Bridge Course

Course Name: Bridge Course in Social Work

Class: MSW 1st Year

Course Instructors: Mr. Ahammed Munavvir, Ms. Rija Rappai, Mr. Abdul Nizar, Ms. Suhan Shihab

Total hours: 15

Theory: 7 hours

Outreach exposure: 8 hours

Course objectives:

- To introduce the concept of professional social work from various background,
- To ensure students about the principles underlying in social work
- To understand the philosophical assumptions and values of social work
- To identify various fields of social work practice and field visit

Modules:

Theory

Sl. No:	Topics	Hours
1	Introduction to professional social work, skills and knowledge for social work, characteristics and functions of social work, professional associations for social work	3
2	Principles of social work profession, methods of social work	2
3	Humanitarian philosophy, values in social work, historical background	2

Outreach

4	Primary and secondary settings, various organizations of social work, Observation visits	8
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Presentation: There will be a report presentation on the basis of outreach exposure in various social work related institutions, NGOs etc.

Evaluation: Bridge course of social work evaluates students' performance during outreach and their ability to adapt to professional mannerism. Report evaluation – 10 marks which will be linked with internal mark

DEPARTMENT OF PHYSICS
2020-2021
Syllabus of Bridge Course

UG - FIRST SEMESTER

Syllabus (12 Hours)

Module-I : (3hours)

What is science?: Scientific method to solve problems- examples.

Module-II :(3hours)

Coordinate systems, Cartesian coordinate system, Plane polar coordinates, Spherical polar coordinates.

Module-III: (3hours)

Physical quantities, Vectors, Scalars, Vector addition and subtraction, Dot product and cross product of vectors, Vector triple products.

Module -IV: (3 Hours)

Motion, frame of reference, displacement, velocity, acceleration, uniform motion

UG -FIRST SEMESTER

Mathematical Physics(10 hrs)

1. Vectors : Rectangular, cylindrical and spherical polar coordinate system, gradient, divergence, and curl , divergence theorem and Stoke's theorem.

2. Matrices and Tensors : Definition, types, arithmetic operations of matrices, inverse of a matrix.

3. Differential Equation : Separable equations , homogeneous equations, integrating factor, exact differential equations, Second order DE and their solutions.

4. Fourier series : General expansion , advantages, problems

UG - Complementary Physics

(10 Hours)

Module 1 - (1 hour)

Science in everyday life, Importance of Physics

Module 2 - (3 hours)

Physical quantities: Equations, Units, dimensions and conversion of units. Scalar and vector quantities, Vectors: Basic Properties, Dot product and Cross product

Module 3 - (2 hours)

Basics of Differentiation and Integration, Important identities

Module 4 - (3 hours)

Method to solve problems in Physics: Solving some problems (plus two levels)

Module 5 - (1 hour)

Discussion on Complementary course syllabus, Exam pattern, marking scheme etc.

DEPARTMENT OF STATISTICS
2020-2021
Syllabus of Bridge Courses

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(R PROGRAMMING)

**Module I : R Overview- R installation, Basic syntax
R data types-Vector, List, Factor, Dataframes, Matrix,
Array**

**R variables-Variable Assignment, Data Type of a
Variable, Finding Variables,
Deleting variables**

**Module II : R:Operators- Arithmetic Operators,
Relational Operators, Logical Operators,
Assignment Operators R:Decision making- if
statement, if else statement, switch statement
R:Loops-for loop, while loop, repeat, break**

**Module III : Statistical analysis using R-Mean,
median, mode
T-test in R-One sample test, Paired test**