THE NATIONAL COLLEGE

AUTONOMOUS

JAYANAGAR 7TH BLOCK, BANGALORE-70

Add-On Course

DEPARTMENT OF COMMERCE

RESEARCH METHODOLOGY

ENROLL WITH
Prof. Nagamani P L
9591135708

Prof. Arun kumar G S
HOD OF COMMERCE

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph 26549684 JAYANAGAR, BANGALORE-70

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Jayanagar 7th Block,
Bangalore - 560 070

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AUTONOMOUS

Jayanagar, Bangalore - 560 070.

Website : www.nationalcollegejayanagar.org E-mail : ncjblore@yahoo.com

NAAC ACCREDITED 'A' GRADE

DEPARTMENT OF COMMERCE

Ref. :

Date 04th October 2018

CIRCULAR

The Department of Commerce is conducting an Add on Course on ***"Research Methodology"*** commencing on Tuesday, 09th October 2018.

The course is designed to impart education in the foundational methods and techniques of academic research in social sciences and business management context.

Interested students can register their names with Prof. Nagamani P L of Commerce Department at the earliest. Limited Seats.

HOD – COMMERCE

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BENGALURU - 560 070

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I SEM BA	**IIISEM BA**	**V SEM BA**
I SEM BSC	**IIISEM BSC**	**VSEM BSC**
I SEM BCA	**III SEM BCA**	**VSEM BCA**
I SEM BCOM A	**III SEM BCOM A**	**VSEM BCOM A**
I SEM BCOM B	**III SEM BCOM B**	**VSEM BCOM B**
I SEM MSC, Mathematics	**I SEM MSC , Physics**	**I SEM M.COM**
III SEM MSC, Mathematics	**IIISEM MSC , Physics**	**III SEM M.COM**

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ADD ON COURSE

Research Methodology

SYLLABUS

TOTAL HOURS :38

Course Objectives:

1. To familiarize participants with basic of research and the research process.
2. 2. To enable the participants in conducting research work and formulating research synopsis and report.
3. Develop understanding on various kinds of research, objectives of doing research, research process, research designs and sampling.

UNIT 1: Introduction to Research Methodology:

Meaning of Research, Objectives of Research, Motivations in Research, types of Research, Research Approaches, Significance of Research, Research Methods v/s Methodology, Research and Scientific Methods, Research Process, Criteria of Good Research. **(08 Hours)**

UNIT 2: Defining the Research Problem: Concept and need, Identification of Research problem, defining and delimiting Research problem. **(06 Hours)**

UNIT 3: Research Questions and Hypothesis: Variables and their linkages, characteristics of good Hypothesis. Research question and formulation of hypotheses-directional and nondirectional hypotheses, Basis for hypotheses. **(08 Hours)**

UNIT 4: Research design: Meaning, Need, Features of Good Design, Concepts, Types. Basic principles of Experimental Design, various methods of Research. Survey, Philosophical, Historical, Experimental, Causal Comparative, Genetic, Case Studies. **(08 Hours)**

UNIT 5: Tools for Data Collection: Collections of Primary Data, Collection of Data through questionnaire and Schedules, other Observation Interview Methods, Collection of Secondary Data, Selection of appropriate method for data collection, Case Study, Focus Group Discussion, Techniques of developing research tools, viz. Questionnaire and rating scales etc. Reliability and validity of Research tools. **(08 Hours)**

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Department of Commerce & Management

ADD – ON COURSE

TITLE OF THE PAPER: RESEARCH METHODOLOGY

Time allowed: 1 Hour ***Maximum Marks: 30***

Instructions:

1. Answer all the questions.
2. Each question carries one mark.
3. Encircle one of the best answer.
4. One mark will be given for each correct answer and no deduction for incorrect answer.

Name of the Student:..... Sem./Course:.....

1) Which of the following is not an essential element of report writing?
   a) Research Methodology b) Reference
   c) Conclusion d) None of these
2) Testing hypothesis is a _____.
   a) Inferential statistics b) Descriptive
   c) Data preparation d) Data analysis
3) Is it possible to apply projective techniques for exploratory investigation
   a) Yes b) No
4) What is the purpose of doing research?
   a) To identify problem b) To find the solution
   c) Both (a) & (b) d) None of these
5) Research is
   a) Searching again & again b) Finding solution to any problem
   c) Working in a scientific way to search for truth of any problem d) None of these
6) The first step of research is:
   a) Finding a problem b) Selecting a problem
   c) Searching a problem d) Identifying a problem
7) A common test in research demands much priority on:
   a) Reliability b) Use ability
   c) Objectivity d) All of the above

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20) The depth of any research can be judged by:
a) Title of the research
b) Objectives of the research
c) Duration of the research
d) Total expenditure on the research

21) Research can be conducted by a person who:
a) Is a hard worker
b) Holds a post graduate degree
c) Possesses thinking and reasoning ability
d) Has studied research methodology

22) Which of the following is not the method of research?
a) Survey
b) Observation
c) Historical
d) None of these

23) Research can be classified as:
a) Quantitative & Qualitative research
b) Pure, applied & exploratory research
c) Historical, survey & experimental research
d) All the above

24) A research problem is feasible only when:
a) It is researchable
b) It has utility and relevance
c) It is new & adds something to knowledge
d) All the above

25) Bibliography given in a research report
a) Has no relevance to research
b) Shows vast knowledge researcher
c) Helps those interested in further research
d) All the above

26) Generalized conclusion on the basis of a sample is technically known as
a) Statistical inference
b) Parameter inference
c) Data analysis & interpretation
d) All of the above

27) Field work based research involves _____
a) Preliminary planning
b) Analysis is of materials
c) Formulation of research design
d) All the above

28) Which one of the following is a research tool?
a) Graph
b) Diagram
c) Illustration
d) Questionnaire

29) Research ethics does not include
a) Integrity
b) Objectivity
c) Honesty
d) Subjectivity

30) A doctor studies the relative effectiveness of two drugs of dengue fever. His research would be classified as
a) Case study
b) Experimental research
c) Descriptive survey
d) None of these

.....

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8) The essential qualities of researcher are
   a) Spirit of free enquiry
   b) Reliance on observation & evidence
   c) Systematization or theorizing of knowledge
   d) All the above

9) In the process of conducting research "formulation of hypothesis" is followed by
   a) Statement of objectives
   b) Analysis of data
   c) Selection of research tools
   d) Collection of data

10) A research paper is a brief report of research work based on:
   a) Primary data only
   b) Secondary data only
   c) Both primary & secondary data
   d) None of the above

11) The main purpose of research in education is to _____.
   a) Increase social status of an individuals
   b) Increase job prospects of an individual
   c) Help in the personal growth of an individual
   d) Help the candidate become an eminent educationist

12) Sampling is advantageous as it _____.
   a) Saves time
   b) Helps in capital saving
   c) Both (a) & (b)
   d) Increases accuracy

13) The data of research is _____.
   a) Qualitative only
   b) Quantitative only
   c) Both (a) & (b)
   d) Neither (a) nor (b)

14) Survey research studies_____.
   a) Events
   b) Processes
   c) Populations
   d) Circumstances

15) Evaluation research is concerned with _____.
   a) Why are we doing?
   b) What are we doing?
   c) How well are we doing?
   d) None of the above

16) A college wants to give training in use of statistical packages for social sciences to researchers for this the college should organize
   a) Lecturer
   b) Workshop
   c) Seminar
   d) Conference

17) Which of the following is not the characteristic of a research?
   a) Research is systematic
   b) Research is not passive
   c) Research is not a process
   d) Research is problem oriented

18) Which of the following statement is correct?
   a) Discoveries are researches
   b) Researches leads to discovery
   c) Invention and research are related
   d) None of the above

19) Books and records are the primary sources of data in:
   a) Clinical research
   b) Historical research
   c) Laboratory research
   d) Participatory research

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Department of English

Presents

VALUE ADDED COURSE

on

SOFT SKILLS

OUR COURSE OFFERS

- **PUBLIC SPEAKING**
- **INTERPERSONAL SKILLS**
- **TIME MANAGEMENT**

ENROL NOW

Prof. Adakoli Bharthi Narayan
HOD, Depertment of English

Dr. B. R. Parineetha
Principal

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DEPARTMENT OF ENGLISH

Value Added Course -2018-19

CIRCULAR

The department of English will conduct Value Added Course in English on the topic, *Soft Skills* for the students of BA for the academic year 2018-19. Duration of the course is 50 hours.

Thank you

Smt. Adkoli Bharati Narayan

Head, Dept of English
The National Degree College
(Autonomous) 7th Block
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DEPARTMENT OF ENGLISH

Value Added Course -2018-19

Soft Skills- Syllabus

Duration: 8 weeks (48 hours)

Course Outcomes:

After completing the course, the student teacher will be competent in:

- Fostering efficient communication skills and interpersonal skills
- Reflecting on leadership qualities for working collaboratively.
- Acquiring employability in diversified roles in the contemporary society

S.No.	DESCRIPTION	Contact Hours
1	• **COMMUNICATION SKILLS** • International Phonetic Alphabet (IPA) Symbols • Speaking with grammatical accuracy • Oral - Planning, Delivering Presentation • Pronunciation • Academic Writing • Communication as a skill for career building	6
2.	• **INTERPERSONAL SKILLS** • Verbal Communication • Non-verbal Communication • Listening Skill • Negotiation • Problem-Solving • Decision-Making	6
3	• **PUBLIC SPEAKING** • Overcoming Fear • Knowing Your Audience • Researching Your Topic • Effective Content • Encouraging Audience Participation • Effective Content • Articulation (audible, clear, effective, eliminating slang) • Developing Public Speaking Techniques • Body Language (personal space, appearance, gestures)	6

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4	• **LEADERSHIP AND TEAM MANAGEMENT** • Qualities of a Good Leader • Leadership Styles • Decision Making • Intrapersonal Skills • Interpersonal Skills • Problem Solving • Critical Thinking • Negotiation Skills	6
5	• **CONFLICT MANAGEMENT** • **Strategies for dealing with conflict (compete or fight, collaboration, compromise or negotiate denial or avoidance, Smoothing over the problem).** • **Essential Skills for Handling Conflict (describe the situation, express your feelings, specify what you want, develop assertiveness)** • **Recognizing Emotions (managing emotion, empathy, emotional intelligence)** • **Mediation Skills** • **Dealing with Criticism**	6
6	• **DECISION MAKING** • **Decision making process (recognize problem, analyze problem, consider goals, look for alternatives, select the best alternative, put decision into action, accept responsibility, evaluate results.** • **Creativity** • **Critical Thinking** • **Confidence Building** • **Fostering a decision making culture**	8
7	• **TIME MANAGEMENT** • **Identifying Time Wasters** • **Time Management Tips**	6
8	• **STESS MANAGEMENT** • **Identifying Factors Responsible For Stress** • **Stress Management Tips** • **Test Preparation Tips** • **Employment Related Stress** • **Relationship Stress**	6
	TOTAL	**50**

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P. G. DEPARTMENT OF MATHEMATICS

conducts a MOOC course

LEARN TO PROGRAM: THE FUNDAMENTALS

By

University of Toronto, Canada

Duration: October - November 2018

Interested students can register their names on or before September 29, 2018.

COURSE DURATION: 30 HOURS

Syllabus

Python, Variables and Functions
Strings and Designing Functions
Booleans, If Statements, For loops
While Loop, Lists and Mutability
Files, Nested lists and strings
Tuples and Dictionaries

DR. K. R. MADHURA
Head, P. G. Dept. of Mathematics

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Department of PG Commerece

Introducing

Add on Certificate Course

on

2018-19

Educational *Management*

Courses Start from

15 Decemeber, 2018

avail this opportunity to brighten your future

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HoD, PG Commerece

Dr. B.R. Parineetha
Principal

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Date: 1-12-2018

Student Notice

This is to inform to all the student's that the Department of PG Commerce is starting the certificate Course in " Education Management" from 15 th December to 10th January 2019.

The objective of the course are

1. Applying the various dimensions of Management models to the College Environment.
2. Maximizing the Human Resources potential for efficient functioning of the Institution.
3. Commentating effectively the decisions, programes,and expectstionsof the management.
4. organising efficiently to minimise stress and nurture talent to create a congenial college climate.

All the PG commerce students are here by informed to register your name in the department on or before 10th of Dec 2018and make use of the opportunity provided. Regularity & Discipline is must.

Duration of the course is 45 Hours

Coordinator
PG Commerce

Principal

The National college(autonomous), Jayanagar
Department of Post Graduate Studies and Research in Physics

PROSPECTUS

ADD ON CERTIFICATE COURSE
"Research methodology"

This Course Focus the students towards Research

FROM: 28/08/2018
DURATION: (34 Teaching Hours)
This course is on free of cost certificate will be distributed at the end of the course.

The National college(autonomous), Jayanagar
Department of Post Graduate Studies and Research in Physics

Value added certificate course in

"Research Methodology"

Student Notice

This is informing all the students of 3rd semester M.Sc. Physics, that the department of Post Graduate studies and Research in Physics is starting the certificate course in "Research methodology" from 28th of August 2018 to 30th of Nov 2018.

The objective of this course is to educate the students towards research and apply the research strategies for during their Research projects.
All the students of M.Sc. Physics are hereby informed to make the best use of the opportunity provided by enrolling their names in the department on or before 28th Aug 2018.
Attendance is compulsory.

Duration of the course is 34 hours.

Co-ordinator

The Co-ordinator
Dept. of PG Studies in Physics
The National College
AUTONOMOUS
Jayanagar, Bangalore - 70.

Principal

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

Date: 08/08/2018

The National college(autonomous), Jayanagar

Department of Post Graduate Studies and Research in Physics

Value added certificate course in

"Research Methodology"

Duration: 34 Hours

Syllabus

Unit-1	Meaning, Objectives and Characteristics of research, Research methods and Methodology; Types of research – Descriptive, Analytical, Applied, Fundamental, Quantitative, Qualitative, Conceptual, Empirical methods.
Unit-2	Developing a research plan: Need of research plan, defining a research problem, Selecting the problem, Necessity of defining the problem, Techniques involved in defining the problem, Importance of literature review in defining a problem, Survey of literature, Primary and secondary sources, identifying gap areas from literature review, Development of working hypothesis, conducting the study (Execution of experiment, Analysis of results etc.), Writing a report and Presentation.
Unit-3	Research design: Basic Principles, Need and Features of good design, Concepts relating to research design: Observation and Facts, Laws and Theories, Prediction and explanation, Induction, Deduction
Unit-4	Development of working hypothesis, conducting the study (Execution of experiment, Analysis of results etc.), Writing a report and Presentation.

Co-ordinator

The Co-ordinator
Dept. of PG Studies in Physics
The National College
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Jayanagar, Bangalore - 70.

Principal

Principal
The National College
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Bangalore - 560 070

Date: 08/08/2018

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Dept. of Economics

organizing

Value Added Course 2018-19

MONEY & BANKING

Dr. Nagachampa Jain

HOD, Department of Economics

Dr. B. R. Parineetha

Principal

THE NATIONAL COLLEGE
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The Department of Economics

Value Added Certificate Course on

"MONEY AND BANKING" 2018-2019

Students Notice

This is informing to all the students that the department of Economics is starting the Add-on course on "Money and Banking" from 25th July 2018. All the Economics students are hereby informed to make the best use of the opportunity by enrolling their names with the Head of the Department of Economics, on or before 21th July 2018.

Head
Department of Economics
The National College, Autonomous
Jayanagar, Bangalore - 560 07

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The National College, Autonomous
Jayanagar, Bangalore
Department of Economics
Value Added Course on – 'Money and Banking'- 2018-2019

Syllabus

Duration: 30 hours

OBJECTIVES:

1. To familiarize students about the fundamentals of money and banking
2. To create an interest among students to the related topic.
3. Encourage the students to understand the working of the monetary system.

Syllabus

Module-I INTRODUCTION

Concept of money and functions of money, demand for money, supply of money

Module-II MONEY AND CAPITAL MARKET

Meaning of money market-Components of money market, Capital market- meaning, constituents of capital market.

Module-III COMMERCIAL BANKING

Structure and functions of commercial banks, types of banking , E-Banking

Module-IV CENTRAL BANKING

Meaning and functions of central bank ,methods of credit control, monetary policy.

Reference Books,

1. **Monetary Economics: Jingan M. L**
2. **Public Economics: Tyagi B. P**

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DEPARTMENT OF COMPUTER SCIENCE

CISCO™

VALUE ADDED COURSE ON CISCO- IOT APPLICATION DEVELOPMENT

2018-2019

ದಿ ನ್ಯಾಷನಲ್ ಕಾಲೇಜು
ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
ಸ್ಥಾಪನೆ: 1965 ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಅಡಿಯಲ್ಲಿನ ಸ್ವಾಯತ್ತ ಸಂಸ್ಥೆ

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Ref. No. NCJ/ Date:01/01/2019

Students Circular

This is to inform all students That the Department Of Computer Science is starting the Certification Course in "CISCO-IOT Application Development" from 07-01-2019 to 28-01-2019.

The Internet of Things (IoT) connects ordinary objects to other objects and applications in the cloud, making them intelligent and interactive.

All the BCA students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head Dept. of Comp. Science
The National Degree College
(Autonomous)
Jayanagar, Bangalore - 560 070

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Principal
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IOT APPLICATION DEVELOPMENT SYLLABUS

COURSE OUTCOME

· Able to understand the application areas of IOT

· Able to realize the revolution of Internet in Mobile Devices, Cloud & Sensor Networks

· Able to understand building blocks of Internet of Things and characteristics.

Course Duration: 35hrs

UNIT I **(6 HRS.)**

Understanding Eco system of Raspberry pi, Arduino and ESP8266 (Nodemcu)

UNIT II **(6 HRS,)**

Interfacing Sensors and Boards
Basics and Advanced Hardware Interaction

UNIT III **(4 HRS)**

Network and Interconnectivity (Communication)

UNIT IV **(8HRS)**

MQTT Dashboard Integration, Visualization and Monitoring, Data Connection through Raspberry pi , Arduino and espB266

UNIT V **(12HRS)**

Projects and Demos

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Department of Computer Science

Organizes

Value AddedCourse

2019-20

Embedded System and Internet of Things

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ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
ಸ್ಥಾಪನೆ: 1965 ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಅಡಿಯಲ್ಲಿನ ಸ್ವಾಯತ್ತ ಸಂಸ್ಥೆ

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Ref. No. NCJ/ Date:2/12/2019

Students Circular

This is to inform to all the students That the Department Of Computer Science is starting the Certification Course in "Embedded Systems and Internet of Things" from 6th December to 6th January.

The Objective is to enhance your skills and knowledge in the field of Embedded Systems and Internet of Things (IoT).

All the BCA students are herby informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head Dept. of Comp. Science
The National Degree College
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Jayanagar, Bangalore - 560 070

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Embedded Systems and Internet of Things Syllabus

Course Outcomes:

- On completion of the course, student will be able to
- Implement an architectural design for IoT for specified requirement
- Solve the given societal challenge using IoT
- Choose between available technologies and devices for stated IoT challenge

Course Duration: 36hrs

Unit I 8-Bit Embedded Processor (6Hrs)
8-Bit Microcontroller – Architecture – Instruction Set and Programming – Programming Parallel Ports – Timers and Serial Port – Interrupt Handling.

Unit II Embedded IoT Platform Design Methodology o Purpose and requirement specification, Process specification, Domain model specification, information model specification, Service specifications, IoT level specification, Functional view specification, Operational view specification, o Device and component integration, o Application development (10 Hrs)

Unit III Iot and Arduino Programming
ARM Processor – Introduction to the Concept of loT Devices – loT Devices Versus Computers – IoT Configurations – Basic Components – Introduction to Arduino – Types of Arduino – Arduino Toolchain – Arduino Programming Structure – Sketches – Pins -Input/Output From Pins Using Sketches – Introduction to Arduino Shields – Integration of Sensors and Actuators with Arduino. (10 Hrs)

Unit IV IoT Case Studies

Amazon Web Services for IoT, Skynet IoT Messaging Platform. Case Studies: Home Intrusion Detection, Weather Monitoring System, Air Pollution Monitoring, Smart Irrigation. (10 Hrs)

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Department of Commerce

presents

A Value Added Course

2019-20

on

Event Management

FOR ENROLLMENT CONTACT DEPT. OF COMMERCE

Prof. Arun Kumar G. S.
Head, Dept. of Commerce

Dr. B. R. Parineetha
Principal

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UG - DEPARTMENT OF COMMERCE

CIRCULAR

Ref:

Date: 28-08-2019

The Department of Commerce is conducting an **ADD- ON COURSE** on the title ***"Event Management"***.

Such of the students who are interested in participating in the add -on course may kindly forward their names to Commerce Department faculty member Prof. Deepa Venkatesh on or before 31st August 2019 during the college timings.

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HOD
Department of Commerce

THE NATIONAL COLLEGE, AUTONOMOUS
SYLLABUS FOR ADD ON COURSE
2019-20 BATCH

Programme:B.Com **Year: I & II**

EVENT MANAGEMENT

No. of Hours: 36

COURSE OBJECTIVES:

- The objective is to provide students with a conceptual framework of Event Management, Event Services, Conducting Event and Managing Public Relations.
- To make the students aware about the different events.

LEARNING OUTCOMES:

- To learn the concepts related to various events.
- Awareness on the process of conducting events.
- Planning and Budgeting of the events.

UNIT1: **08 HRS**

Introduction to event

Event- Meaning of event- Need for Event Management- Analysis of Event, Scope of Event, Decision Makers- Event Manager, Technical Staff- Establishing of Policies and Procedure- Developing Record Keeping Systems.

UNIT2: **08 HRS**

Event management procedure

Principles for holding an Event, General Details, Permissions- Policies, Government and Local Authorities, - Phonographic Performance License, Utilities- Fire brigade, Ambulance, Catering, Electricity, Water.

UNIT3: **08 HRS**

Conduct of an event

Preparing a Planning Schedule, Organizing Tables, Assigning Responsibilities, Communication and Budget of Event- Checklist, Computer aided Event Management– Roles & Responsibilities of Event Managers for Different Events.

UNIT4: **06 HRS**

Public relations

Introductions to Public Relations- Concept- Nature- Importance- Limitations- Media- Types of Media- Media Management.

UNIT5: **06 HRS**

Corporate events

Planning of Corporate Event, Job Responsibility of Corporate Events Organizer, Arrangements, Budgeting, Safety of Guests and Participants, Creating Blue Print.

SKILL DEVELOPMENT:

- Preparation of Event Plan for Wedding,
- Preparation of Event Plan for College day Celebrations.
- Preparation of Budget for conducting intercollegiate Commerce Fest.

BOOKSFOR REFERENCE:

1. GhousBasha–Advertising & Media Mgt,VBH.
2. AnneStephen–Event Management, HPH.
3. K.Venkataramana ,Event Management, SHBP.

THE NATIONAL COLLEGE

AUTONOMOUS

JAYANAGAR, BANGALORE - 560 070

Accredited 'A' Grade by NAAC

DEPARTMENT OF ENGLISH

conducts

VALUE ADDED COURSE

ON

'ENGLISH FOR COMPETITIVE EXAMINATIONS'

Interested students may enroll for the course
on or before 30-12-2018

Commencement of Course: 01-01-2019
Course Duration : 30 Hrs.
No. of students per Batch : 50

Syllabus:

Part-I : Grammar and Composition

- Remedial Grammar
- Miscellaneous Exercises in Grammar

Part-II : Vocabulary

- Words
- One-Word Substitution
- Synonyms and Antonyms
- Idioms and Phrases
- Miscellaneous

Part-III : Composition

- Comprehension and Interpretation
- Letter-Writing
- Precis-Writing
- Essay-Writing

Prof. Adkoli Bharathi Narayan
Head, Dept. of English

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THE NATIONAL COLLEGE
AUTONOMOUS
JAYANAGAR, BANGALORE - 560070.

Department of English.

CIRCULAR

01.01.2019

Department of English will conduct Add on Course in English on the topic - "ENGLISH FOR COMPETITIVE EXAMINATIONS." from the Second Week of January, 2019.

Duration of the course is 30 ([illegible]) hours.

Number of the students will be limited to a batch of 50 (fifty) students. Students of all semesters and Streams can take up the course by paying the Registration Fees of Rs. 250/- (Two hundred and fifty rupees only) at the Dept of English.

Thank you.

2/1/19
3rd sem BCA

BCA
2/1/19 02/01/19.

2/1/19
II Sem BCom

2/1/19

Prabhu
(Smt. Bharati N. Adkoli)

Head, Dept of English
The National Degree College
(Autonomous) 7th Block
Jayanagar, Bangalore - 70.

1/1/2019

2/1/2019

II Sem B.A.

2/1/19

2/1/19
II Sem B.A.

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The National Education Society of Karnataka (R.)

The National College

Autonomous

Jayanagara, Bengaluru

NAAC Accredited With Grade 'A'

Department of Electronics

organising

Value Added Course on

PCB Design & Fabrication

Interested students Enroll Now

Prof. S. Cheluvappa
Head of the Department
Electronics

Dr. B. R. Parineetha
Principal,
The National College, Jayanagar

THE NATIONAL COLLEGE

AUTONOMOUS

36th B Cross, 7th Block, Jayanagar, Bangalore - 560 070

Phone : 080-26549684 Tele Fax : 080-26656644

Website : www.ncjayanagar.com E-mail: ncjblore@yahoo.com

NAAC ACCREDITED - 'A' GRADE

Ref. No. NCJ/ / /

Date 27/12/2019

DEPARTMENT OF ELECTRONICS

CIRCULAR

The Department of Electronics is conducting a **Value Added Course** on '***PCB Design and Fabrication***'. Interested students are hereby informed to enrol their names with Prof. Cheluvappa S H.O.D of Electronics on or before 30th December 2019.

Principal
The National College,
Jayanagar
Bangalore - 560 070.

Head of The Dept of Electronics
The National College,
(Autonomous)
Jayanagar, Bengaluru - 560 070

The National Degree College * Autonomous Bangalore-70. * 7th Block, Jayanagar

THE NATIONAL COLLEGE

(Autonomous)
Jayanagar, Bengaluru-70

Department of Electronics

Value Added Course on

PCB Design and Fabrication

Course Duration: 34 Hours

Unit 1: Introduction to Printed Circuit Board **6Hrs**

Introduction: Definition of PCB, advantages of PCB, History of PCB, Evolution of PCB, component of PCB, classification of PCB, Basic building blocks of PCB. Specification Of PCB's

Unit 2: PCB Layout design Techniques **10Hrs**

Starting with cad, working with example, Basic PCB Layout design principles, schematic, layout design techniques, placement, connection of parts, defining vias, fanouts, pads, Traces(tracks).Grid and Grid Size in CAD, Adding Components, Component Search, Moving Components and Wires, Copying and Deleting Components and Wires, Naming and Value assignment of Components, Connecting different components and its pin, Adding Texts, track & thermal relief, new component creation technique, Grounds and supplies

Unit3:Industry standards and Circuit Examples **8Hrs**

Industry standards &mechanical consideration PCB types & dimensions, standard thickness of paths & vias standard holes dimensions & trace width placement & spacing requirements of SMD &through hole devices increasing and decreasing trace widths for power nets according to design standards creating bending curvature for signal integrity standard land patterns & pad stacks for through hole &surface mount devices.

Circuit Examples: Power Supply Circuit layout designing, 555 Timer Circuit Layout designing

Unit 4:Fabrication process **10Hrs**

Copper Clad Board, Image transfer, Etching of Copper Clad Board, Solder Masking of Etched Copper Board, Masking of Etched Copper Board, Silk Screen Layer Printing on Copper Board, Drilling of Holes, Soldering and Testing, Project.

****

Principal
The National College,
Jayanagar
Bangalore - 560 070.

Head of The Dept of Electronics
The National College,
(Autonomous)
Jayanagar, Bangalore - 560 070

The National College

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Jayanagra, Bengaluru
NAAC Accredited with Grade "A"

P. G. DEPARTMENT OF MATHEMATICS

conducts a MOOC course

LEARN TO PROGRAM: THE FUNDAMENTALS

By

University of Toronto, Canada

Duration: November - December 2019

Interested students can register their names on or before October 31, 2019.

COURSE DURATION: 30 HOURS

Syllabus

Python, Variables and Functions
Strings and Designing Functions
Booleans, If Statements, For loops
While Loop, Lists and Mutability
Files, Nested lists and strings
Tuples and Dictionaries

DR. K. R. MADHURA
Head, P. G. Dept. of Mathematics

The National Education Society of Karnataka (R.)

The National College

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Jayanagar, Bangalore -70

NAAC Accredited With Grade 'A'

Dept. of Economics

organizing

Value Added Course 2019-20

ECONOMICS OF DAILY LIFE

Dr. Nagachampa Jain
HOD, Department of Economics

Dr. B. R. Parineetha
Principal

THE NATIONAL COLLEGE
AUTONOMOUS
JAYANAGAR, BANGALORE-560070
The Department of Economics

Value Added Certificate Course on

"Economics of Daily Life" 2019-2020

Students Notice

This is informing to all the students that the department of Economics is starting the Add-on course on "Economics of Daily Life" from 1st August 2019. All the Economics students are hereby informed to make the best use of the opportunity by enrolling their names with the Head of the Department of Economics, on or before 31th July 2019.

Head
Department of Economics
The National College, Autonomous
Jayanagar, Bangalore - 560 0

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AUTONOMOUS
Ph : 26549684
JAYANAGAR BANGALORE-70

Principal
PRINCIPAL
The National College
Jayanagar, Bangalore-70.

The National College, Autonomous
Jayanagar, Bangalore
Department of Economics
Value Added Course on – Economics of Daily Life 2019-2020

Syllabus

Duration: 35 hours

OBJECTIVES:

1. To familiarize students about the fundamentals of the prescribed topic.
2. To create an interest among students to the related topic.
3. Encourage the students to actively participate to have a hand on experience on the topic

Syllabus

Module-1 Budget

Meaning – types- concepts of budget deficits- inflation and deflation, WPI. RPI, Business cycles.

Module-2 Banking

Banking instruments- Credit card- ATM Card – E banking- RTGS- NEFT- Latest banking services, Micro finance

Module-3 Foreign Trade

Foreign Trade- Imports and exports- foreign exchange- Exchange rate- Balance of trade and payments- invisibles and visibles - Wholesale and retail trade –MNCs

Module-4 Stock Market

Stocks, shares and debentures – stock market – BSE, NSE, NIFTY, SENSEX, Repo/Reverse repo, SEBI, FDI, Venture Capital – Online trading – bulls and bears.

Reference Books,

1. **Monetary Economics: Jingan M. L**
2. **Public Economics: Tyagi B. P**

Head
Department of Economics
The National College, Autonomous
Jayanagar, Bangalore - 560 070

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph : 26549684 JAYANAGAR, BANGALORE-70

PRINCIPAL
The National College
Jayanagar, Bangalore-70

The National College
Jayanagar

ADVANCED EXCEL

ADD-On Course
on
Advance Excel

04-01-2020 to 22-2-2020
(35 Hours)

1:30pm to 5:30pm (every saturday)
Computer Science Lab

Resource Person:Prof. Varadaraj R, Prof.T S Asha, Prof.Chandana G H, Prof. Deepika s, Ganesh Rao.

Intrested students can contact computer science staff

ದಿ ನ್ಯಾಷನಲ್ ಕಾಲೇಜು
ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
ಸ್ಥಾಪನೆ: 1965 ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಅಡಿಯಲ್ಲಿನ ಸ್ವಾಯತ್ತ ಸಂಸ್ಥೆ

The National College

Jayanagar, Bangalore – 560070
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Ref. No. NCJ/ Date:01/02/2020

Students Circular

This is to inform to all the students That the Department Of Computer Science is starting the Certification Course in "Advance Excel" from 04-01-2020 to 22-02-2020.

The Objective is to enhance your skills and gain knowledge on Advance Excel

All the B.Com students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head Dept. of Comp. Science
The National Degree College
(Autonomous)
Jayanagar, Bangalore - 560 070

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph 26549684 JAYANAGAR, BANGALORE-70

Principal
The National College
Autonomous
Jayanagar 9th Block,
Bangalore - 560 070.

The National College, Jayanagar
Autonomous
Bangalore
Department of Computer Science

Add-on Course: "**Advanced Excel**"

2019-2020

Syllabus

This course enables the learner to use Microsoft Office Excel 2013 to analyse and calculate complex data using tools available in it.

Course Duration: 35hrs Course Start: 4-1-2020 to 22-2-2020

Course Objective:

- Calculating data with advanced formulas.
- Organizing worksheet and table data.
- Presenting data using charts.
- Analyzing data using Pivot tables and pivot charts.
- Inserting graphic objects.
- Customizing and enhancing workbooks and the excel environment.
- Streamlining workflow.
- Collaborating with others.
- Auditing worksheets.
- Analyzing data.
- Working with multiple workbooks.
- Importing and Exporting data.
- Using Excel with the web.
- Structuring workbooks with XML
- Automating business operations.
- Manipulating the Excel Environment.

Course Outcome:

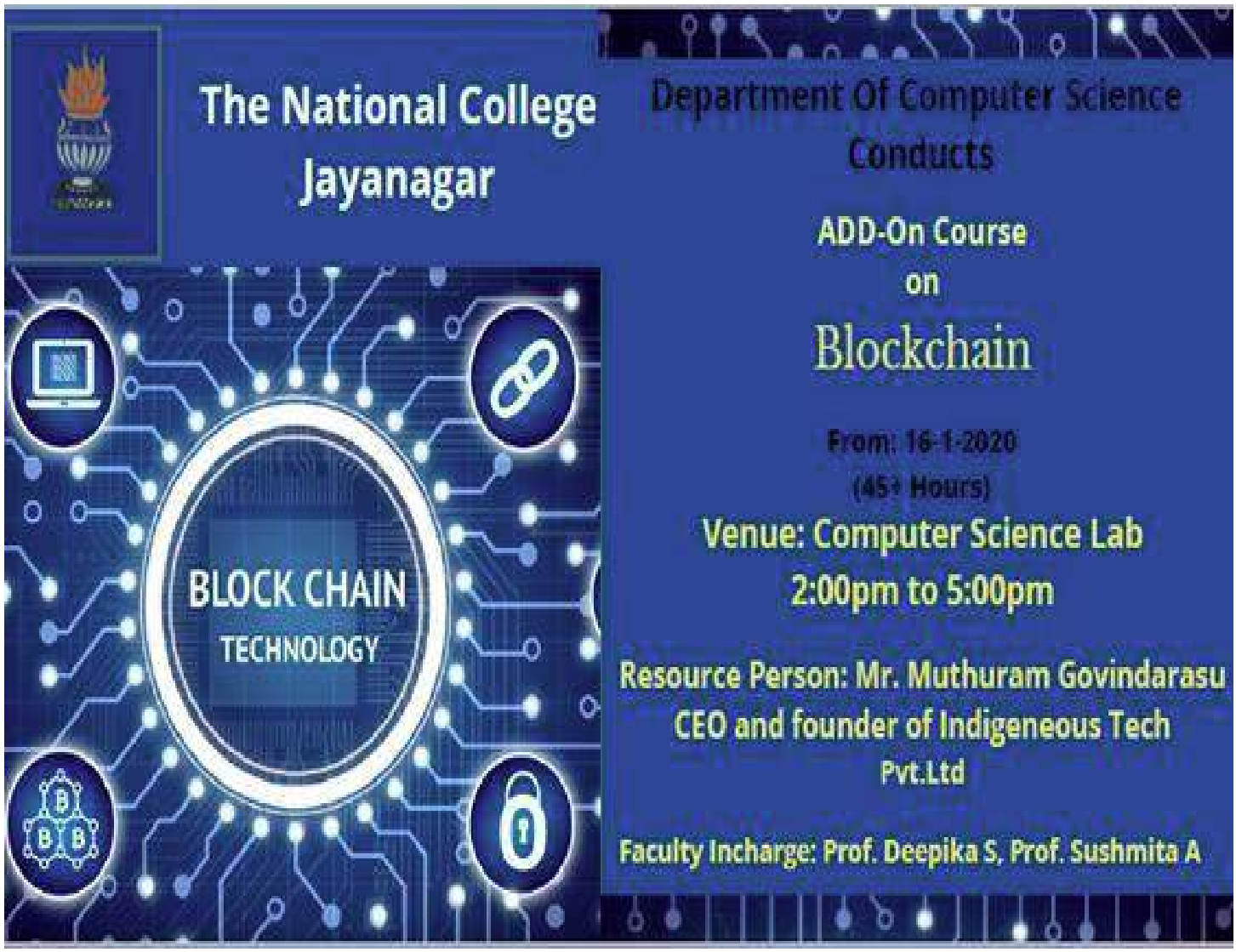
Upon successful completion of the course the student will be able to:

- Work on Excel sheet working on various functions.
- Work on importing and exporting data.

Unit- I: Introduction & Formatting Numbers	Teaching Hours :05

Interface, Tabs and Ribbons, Document windows, Navigation Tips, Office Button and Save, Entering Data, Fonts, Fills and Alignment, Cut, Copy, Paste, Paste Special, Undo and Redo. Moving, finding, Replacing a Value, Cell Styles, Comments, Currency Format, Format Printer, Formatting Dates, Custom and Special Formats.

Unit – II: Managing Worksheets & Modifying Rows and Columns	Teaching Hours :08
Naming and Movind worksheets, Copying worksheets, Adding, Deleting and Hiding Worksheet, Grouping worksheets, moving, copying, deleting and hiding, Grouped worksheets, inserting and deleting columns and Rows, inserting & Deleting Cells, Inserting multiple columns & Rows modifying cell width and height, hiding and unhiding rows and columns.	
Unit- III: Understanding Formulas, Changing views, Autofill and Custom lists	Teaching Hours :10
Using operations, Creating formulas, Autosum, Common formulas, searching for formulas, copying formulas, using relative and absolute reference. Workbook views, show/Hide, Zoom Features, Freeze panes, Split windows, viewing multiple windows, minimize the ribbon, worksheet backgrounds, watermarks. Autofill a series, Autofill non-adjacent cells, autofill on multiple sheets, creating custom lists, series formatting.	
UNIT IV: **Conditional Formatting, Tables & Data Tools, Ranges, Dates, Lookups, Conditional logic & Text Formulas**	Teaching Hours :10
Conditonal Formatting: Highlights cells rules, top/bottom rules, data bars, color scales, custom formatting rule. Tables & Data Tools: Insert a table and style options, add rows and columns, perform a function in a table, summarise with pivot table. Data validation, drop down lists, removing duplicates, text to columns. Ranges & Dates: Cells Names, Named Ranges, Formulas with Cell Names, Date Formulas. Lookups: Vlookup, Vlookup exact match, Hlookup, Hlookup exact match. Conditional logical & Text formulas: If statements, Nested if, AND, OR, NOT, IFERROR, SUMIF, AVERAGEIF, COUNTIF & COUNTIFS, SUMIFS, AVERAGEIFS, CASE FORMULAS, FIX NUMBER FIELDS, Trim spaces, Substitute Text.	
UNIT V: **Introduction to Charts & Formatting Charts**	Teaching Hours :02
Introduction to charts & Formatting charts: Chart types, instant chart, update chart, column chart, picture fill adjust chart size, line chart, scatter chart, chart styles, chart layouts, add labels, axis options, chart title, legends, data labels. Sort, Filter: Group and Ungroup, Sort, Filter Data. Pivot Table: Creating Pivot Table, Modifying Pivot Table data. Protecting data and printing & saving a workbook.	


The National College
Jayanagar
Department Of Computer Science
Conducts
ADD-On Course
on
Blockchain
From: 16-1-2020
(45+ Hours)
Venue: Computer Science Lab
2:00pm to 5:00pm
Resource Person: Mr. Muthuram Govindarasu
CEO and founder of Indigeneous Tech
Pvt.Ltd
Faculty Incharge: Prof. Deepika S, Prof. Sushmita A
BLOCK CHAIN
TECHNOLOGY

ದಿ ನ್ಯಾಷನಲ್ ಕಾಲೇಜು
ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
ಸ್ಥಾಪನೆ: 1965 ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಅಡಿಯಲ್ಲಿನ ಸ್ವಾಯತ್ತ ಸಂಸ್ಥೆ

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Ref. No. NCJ/ Date:29/12/2019

Students Circular

This is to inform to all the students That the Department Of Computer Science is starting the Certification Course in "Block Chain" from 6-01-2020 to 30-05-2020.

The Objective is to provide a conceptual understanding of how blockchain technology can be used to innovate and improve business processes.

All the 6th BCA students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head, Dept. of Comp. Science
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Jayanagar, Bangalore - 560 070

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph 26549684 JAYANAGAR, BANGALORE-70

Principal
The National College
Autonomous
Jayanagar 9th Block,
Bangalore - 560 070.

Blockchain Professional Training Syllabus

Course Outcome:

- Explain design principles of Bitcoin and Ethereum and Hyperledger.
- . Interact with a blockchain system by sending and reading transactions
- Design, build, and deploy a distributed application
- Develop a smart contract in Ethereum Framework
- To understand the working of Hyperledger

Course Duration: 60 hrs

Muthuram Govindarasu

Indigeneous Tech Private Limited, #165, 8th Cross, CIL Layout , Cholanayakanahalli, RT Nagar (PO), Bangalore-560032

Contents

Blockchain Professional Training Syllabus for NCJ 2

Module-1: Introduction to Blockchain 2

1) Introduction Topics 2

Module-2: Bitcoins and Blockchain Technology 2

1) Characteristics of Blockchain Technology 2
2) Blockchain Basics 3
3) Bitcoins Basics 3
4) Technical Features of Blockchain 3
5) Working of Bitcoins Blockchain 3
6) Additional Technical Info of Bitcoins Blockchain 4

Module-3: Ethereum Blockchain 4

1) Technology and Technical Features of Ethereum Blockchain 4

Module-4: Hyperledger Fabric based Blockchain 4

1) Technology and Technical Features of Hyperledger Fabric based Blockchain 4

Module-5: Set-up Project Environment for Ethereum Blockchain based Projects 5

1) Tools and Technologies Used: 5
2) Platform 5

Module-6: Design, Develop and Execute Ethereum Blockchain based Projects 6

Module-7: Set-up Project Environment for Hyperledger Fabric based Blockchain 6

1) Tools and Technologies Used: 6
2) Platform 6

Module-8: Design, Develop and Execute Hyperledger Fabric Blockchain based Projects 6

Blockchain Professional Training Syllabus for NCJ:

Module Number	Module Title	Modules Training Duration in Hours
Module-1	Introduction to Machine Learning (ML)	2
Module-2	Bitcoins and Blockchain Technology	4
Module-3	Ethereum Blockchain	4
Module-4	Hyperledger Fabric based Blockchain	6
Module-5	Set-up Project Environment for Ethereum Blockchain based Projects	5
Module-6	Design, Develop and Execute Ethereum Blockchain based Projects	20
Module-7	Set-up Project Environment for Hyperledger Fabric Blockchain based Projects	5
Module-8	Design, Develop and Execute Hyperledger Fabric Blockchain based Projects	14
Total		60

odule-1: Introduction to Blockchain

1) Introduction Topics

a) **What is Blockchain?**
b) **What is Blockchain Technology?**
c) **Why we need to use this Technology?**
d) **Some of the prominent scenarios where this technology can solve our current problems**
e) **Chronological development of Blockchain Technology**
f) **Is the Blockchain technology a Paradigm shift from technology perspective?**

Module-2: Bitcoins and Blockchain Technology

1) Characteristics of Blockchain Technology

a) **Immutable**
b) **Secured**
c) **Transparent**

d) Shared
e) Avoidance of Double Spending
f) Maintenance of History of Transactions
g) Less Time for Transactions
h) Minimum Transaction Fees

2) Blockchain Basics

a) Blocks + Chain = Blockchain
b) Block Creation Time
c) Block Header
d) Transaction in a Blockchain

3) Bitcoins Basics

a) Cryptography and its Types
b) Hashing
c) Crypto Currencies
d) Bitcoins and its purpose
e) Current Usage of Bitcoins
f) Current Value of a Bitcoin
g) Purchasing and selling of Bitcoins
h) Why some of the Governments are not permitting the usage of Crypto Currencies like Bitcoins
i) What do you mean by Bitcoin Transaction?

4) Technical Features of Blockchain

a) Distributed Networks
b) Peer-To-Peer (P2P) Network
c) Distributed Ledger Technology (DLT)
d) Wallets
e) Nodes
f) Merkel Tree
g) Mining
h) Mining Reward
i) Proof of Work (POW)
j) Consensus Mechanism

5) Working of Bitcoins Blockchain

a) End-to-End explanation of a Bitcoin Transaction
b) Bitcoins Generation and control

6) **Additional Technical Info of Bitcoins Blockchain**
   a) **Blockchain confirmations**
   b) **Longest Chain Rule**
   c) **What is 51% attack in Blockchain?**
   d) **What is forking in Blockchain?**
   e) **Limitations of Bitcoins Blockchain**
   f) **Types of Blockchain**

Module-3: Ethereum Blockchain

1) **Technology and Technical Features of Ethereum Blockchain**
   a) **What is an Ethereum Blockchain?**
   b) **History and evaluation of Ethereum Blockchain**
   c) **Ethereum Blockchain Vs Bitcoins Blockchain**
   d) **What is Ether?**
   e) **Current Value of Ether?**
   f) **What is a Smart Contract?**
   g) **Solidity Language**
   h) **Transaction Fees**
   i) **What is Gas?**
   j) **What is Gas Limit?**
   k) **Ethereum Wallets**
   l) **Ethereum Accounts**
   m) **Tokens**
   n) **ERC-20 Tokens**
   o) **Ethereum Transactions**
   p) **Mining**
   q) **Mining Reward**
   r) **Proof of Work (POW)**
   s) **Consensus Mechanism**

Module-4: Hyperledger Fabric based Blockchain

1) **Technology and Technical Features of Hyperledger Fabric based Blockchain**

   a) **What is an Hyperledger Fabric based Blockchain?**
   b) **History and evaluation of Hyperledger Fabric based Blockchain**
   c) **Ethereum Blockchain Vs Hyperledger Fabric based Blockchain**

d) **Organization**
e) **Blockchain Network**
f) **Blocks**
g) **Block Creation Time**
h) **Consensus Mechanism**
i) **Cryptographic based Certificates**
j) **Cryptocurrency used**
k) **Peers**
l) **Anchor Peers**
m) **Certification Authority (CA)**
n) **Orderer**
o) **CouchDB**
p) **Command Line Interface (CLI)**
q) **Channel**
r) **Smart Contract or Chaincode**
s) **Golang**
t) **Members Service Provider (MSP)**

Module-5: Set-up Project Environment for Ethereum Blockchain based Projects

1) Tools and Technologies Used:

a) **NodeJS**
b) **NPM**
c) **Truffle and Solidity**
d) **Ganache Test Ethereum Blockchain**
e) **Metamask Wallet**
f) **LiteServer**
g) **JavaScript**
h) **Web3.js**
i) **HTML**
j) **CSS and**
k) **ReactApp**

2) Platform

a) **Windows**

Module-6: Design, Develop and Execute Ethereum Blockchain based Projects

Note: Here, we will design, develop and execute 10 projects using the Test Ethereum Blockchain (Ganache). Each Project will be assigned with three Students.

Module-7: Set-up Project Environment for Hyperledger Fabric based Blockchain

1) **Tools and Technologies Used:**

   a) **CURL**
   b) **NodeJS**
   c) **NPM**
   d) **Golang**
   e) **Docker**
   f) **Docker Compose**
   g) **Hyperledger Fabric Binaries**
   h) **Blockchain configuration files (.yaml files)**
   i) **JavaScript based Application Files**
   j) **ShellScript Files**
   k) **ReactApp based frontend Express Server**
   l) **Socket.io programs**
   m) **Cloud Computing (Amazon Web Services)**
   n) **EC2 Instances using Ubuntu AMI**
   o) **FileZilla Software**
   p) **PuTTy Software**

2) **Platform**

   a) **AWS EC2 Instances with Ubuntu Operating System AMI accessible through Putty from Windows Machine**

Module-8: Design, Develop and Execute Hyperledger Fabric Blockchain based Projects

THE NATIONAL COLLEGE

Department of computer science

Is Organising

Online ADD-On Course

On

Introduction To Open Source Software

The Department started in 1991 under the leadership of Dr. A.H Rama Rao President of NES. Department provides courses like Bachelor of Computer Application (B.C.A),Bachelor of Computer Application (Data Science), Bachelor of Computer Applicatio,(Internet of Things), Bachelor of Science (Bio Medical Electronics)

THE NATIONAL COLLEGE

COURSE:

Introduction To Open Source Software

Continuous engagement between the instructors and students is ensured through Forums and Real-time chat applications. Students will be exposed to the Free and Open-source Software ethos.

COURSE STRUCTURE:

- Programming Basics Python (4 hours)
- Fundamentals of OS (3 hours)
- Basics of Terminal (3 hours)
- Fundamentals of Networking (3 hours)
- Basics of Databases (3 hours)
- Talks on Personal Branding (2 hours)
- Capstone Project (8 hours)
- Talk on Online Privacy and Advocacy (3 hour)
- Closing Talks (2 hour)
- Talks on FOSS (3 hours)

Resource person

Akhilesh

A Natural Language Processing (NLP) Researcher working on Indic languages. He is a FOSS enthusiast

Akshay Murali

The Co-Founder & CTO of Mergelessons. Head of Kaggle Data ScienceCommunity.

Nikhil Kanta

Masters in Physics from IIT Madras. and is a big enthusiast of free and Open source software

Varun

Software Developer, an Open Source enthusiast, and a Masters degree holder in Computer Applications (MCA)

FOR MORE DETAILS

Contact

Varun - 9988254852

ದಿ ನ್ಯಾಷನಲ್ ಕಾಲೇಜು
ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
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Ref. No. NCJ/ Date:29/06/2020

Students Circular

This is to inform to all the students That the Department Of Computer Science is starting the Certification Course in "Introduction to Open Source" from 04-07-2020 to 18-09-2020.

The Objective is to gain knowledge on programming basics on python, fundamentals of Operating System, Basics of terminal in Linux, fundamentals of networking, Github, FOSS.

All the BCA students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head Dept. of Comp. Science
The National Degree College
(Autonomous)
Jayanagar, Bangalore - 560 070

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph 26549684 JAYANAGAR, BANGALORE-70

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070.

INTRODUCTION TO OPEN SOURCE SOFTWARE SYLLABUS

Course Outcome:
Students will become familiar with the open source movement, its philosophy &history, the open source process and its development methods, tools, communi cation mechanisms and licensing issues, The Students will be able to

- Choose between the various open source licenses and learn the implications for users, developers, and the software community in general
- Understand applications of Linux
- Learn usage of Git
- How to use Communication softwares

Course Duration: 35hrs

Lecture 1 – Course introduction (8Hrs)

Intro to open source. What is open source?
License Issues (MPL, GPL, LGPL, etc.)
Contrasting and comparing open source vs. traditional development methodologies

Lecture 2 – Project Introduction (6Hrs)

General purpose computer vs. handheld computer applications , HW/SW constraints , UI ,User needs and Network

Lecture 3 : Introduction to Linux (8 Hrs)

Linux distributions, system configurations and graphical interface of Linux, basic command line operations, common applications of Linux, and use of Virtual Box

Lecture 4 ;Version Control using Git and Github (10 Hrs)

Create a local git repository, Add a new file to the repo
Add a file to the staging environment Create a commit
Create a new branch Create a new repository on GitHub Create a pull request (PR),Merge a PR

Lecture 5 – Open source software for Communication (6Hrs)

Bigblue Button, Skype, Jitsi Meet, Discord

The National College
Jayanagar

ADD-On Course

on

Web-Technology

07-12-2019 to 26-01-2020

(35 Hours)

1:30pm to 5:30pm

Computer Science Lab

Resource Person:Prof. Varadaraj R,
Prof.Chandana G H, Prof. Deepika s,

How to Code a Website

Build a Website Using HTML and CSS

Intrested students can contact
computer science staff

ದಿ ನ್ಯಾಷನಲ್ ಕಾಲೇಜು
ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
ಸ್ಥಾಪನೆ: 1965 ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಅಡಿಯಲ್ಲಿನ ಸ್ವಾಯತ್ತ ಸಂಸ್ಥೆ

The National College
Jayanagar, Bangalore – 560070
ESTD. 1965 Autonomous Institute, Affiliated to Bangalore University

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Ref. No. NCJ/ Date:1/12/2019

Students Circular

This is to inform to all the students That the Department Of Computer Science is starting the Certification Course in "Web Programming" from 7-12-2019 to 26-1-2020.

The Objective is to enhance your skills and gain knowledge on how to build a website using HTML and CSS. 20.

All the 1st year B.Sc students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head, Dept. of Comp. Science
The National Degree College
(Autonomous)
Jayanagar, Bangalore - 560 070

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph 26549684 JAYANAGAR, BANGALORE-70

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070.

The National College, Jayanagar

Autonomous

Bangalore

Department of Computer Science

Add-on Course: "**How To Code – A Website**"

2019-2020

Syllabus

Course Objective:

- Introductory course exploring the fundamentals of internet communications with an emphasis on the World Wide Web.
- Students develop an understanding of the internet's underlying technologies and learn how to utilize them as contributing members of the web community.
- Students become proficient with creating and publishing Web pages using HTML and CSS. No prior knowledge or experience is assumed.

Course Outcome:

Upon successful completion of the course the student will be able to:

- Describe the technologies that form the basis of the Internet and, in particular, the World Wide Web.
- Analyze a web page and identify its elements and attributes.
- Create a web page using HTML and cascading style sheets.

Course Duration: 35hrs

Unit- I :Introduction	Teaching Hours :05
Brief History of Internet, World Wide Web ,URL, Web Browser, IP address, Domain name, Internet service providers, Internet Security, web search engine, Client server technology.	
Unit – II: Web Design Principles	Teaching Hours :08
Basic principles involved in developing a web site , Planning process , Five Golden rules of web designing , Designing navigation bar , Page design , Home Page Layout Design Concept.	
Unit- III: Introduction to HTML	Teaching Hours :10
What is HTML ,HTML Documents , Basic structure of an HTML document Creating an HTML document ,Mark up Tags ,Heading-Paragraphs , Line Breaks HTML Tags.	
UNIT IV: **Elements of HTML**	Teaching Hours :10
Introduction to elements of HTML , Working with Text ,Working with Lists, Tables and Frames , Working with Hyperlinks, Images and Multimedia, Working with Forms and controls.	
UNIT V: **Introduction to Cascading Style Sheets**	Teaching Hours :02
Concept of CSS, Creating Style Sheet, CSS Properties, CSS Styling (Background, Text Format, Controlling Fonts) , Working with block elements and objects.	

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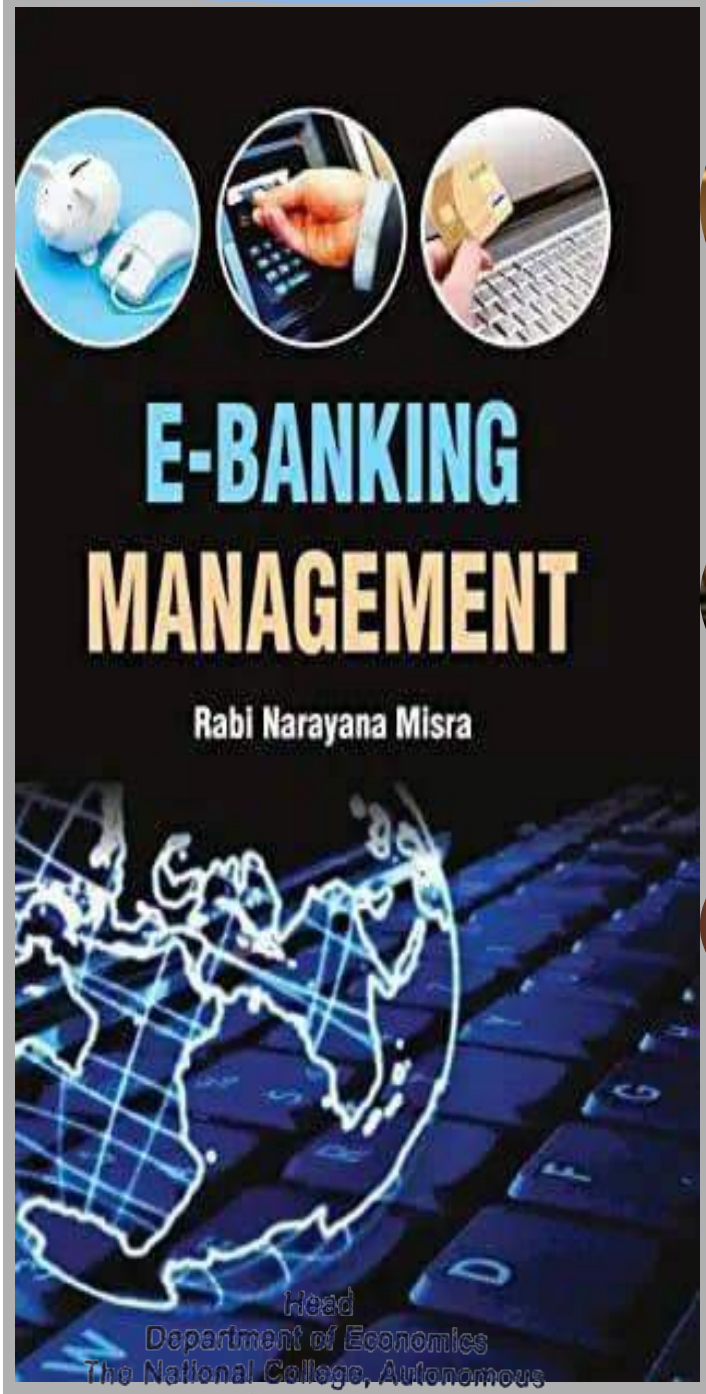
Jayanagar.Bangalore-560070

ADDMISSIONS

OPEN FOR 2021

DEPARTMENT OF ECONOMICS

VALUE ADDED COURSE - E-BANKING & MANGEMENT



ENJOY LEARNING

Head
Department of Economics
The National College, Autonomous
Jayanagar, Bangalore - 560 070

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070.

3/04/2021

THE NATIONAL COLLEGE
AUTONOMUS
JAYANAGAR, BANGALORE-560070

The Department of Economics

CIRCULAR

The department of Economics is offering a Add-on course on E-Banking and Management, interested students are here by informed to register their names with the Head of the Department of Economics, on or before 26 April 2021 .

3/04/2021
Head of The Dept of Economics
The National College
(Autonomous) 7th Block,
Jayanagar, Bangalore-70

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The National College

Autonomous Jayanagar,
Bengaluru-560 070.

Department of Economics

Add-on Course - E- Banking and Management

B.A., B.Sc., B.Com and B.C.A

Objectives:

a] To acquaint the students of different streams to the topic.
b] To give the students a general functional view of the e-Money
c] To make the students to understand the uses of e-Money.

Total hours:35

Module-I	**Introduction:** Meaning, Definitions, objectives, merits and demerits, uses of e-Banking & Management.
Module-II	**e-Money:** Components, features, Paper money to e-money-its advantages and disadvantages with special reference to India.
Module-III	**Functional aspect of e-Banking &Management** Functional features of e-Banking & Management, security Breach and safety measure. E -banking instruments- NEFT, RTGs, Core banking.
Module-IV	**e-Banking & Management policy** Reserve Bank of India and Government of India e-money Policies- from demonetization to e-monetization and its implications.

COURSE OUTCOME

1) Student understands modern banking services.
2) Student understands the banking system in India.
3) Student understands about commercial banks and its products.

Reference:

1. Cybercash by Robert Guttmann.
2. E-Money and Payment Systems by Thomas Lammer.
3. Handbook of E-Money and E-Payments by Thomas Lammer.

Head
Department of Economics
The National College, Autonomous
Jayanagar, Bangalore - 560 070

Principal
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Jayanagar 7th Block,
Bangalore - 560 070.

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DEPARTMENT OF SOCIOLOGY

conducts

VALUE ADDED COURSE ON

"SOCIAL DEMOGRAPHY"

Interested students may enroll for the course on or before 02-04-2021

Commencement of Course: 03-04-2021

Course Duration : 60 Hrs.

No. of students per Batch : 27

Syllabus:

Module-I : DEMOGRAPHY

- Study of population
- Concepts of population
- Measurement of population

Module -II : THEORIES OF POPULATION

- Pre & Post Malthusian Theories
- Miscellaneous

Part-III : MIGRATION

- Migration, Urbanization & Demographic change

Prof. Saraswathi R

Head, Dept. of Sociology

THE NATIONAL COLLEGE

Autonomous

Jayanagar, Bangalore-560 070

Department of Sociology

VALUE ADDED COURSE SYLLABUS

Title of the paper: **Social Demography**

Course Objectives: **60 hours**

The purpose of introducing this course to the students is to gain knowledge on urban population, problems and measures. It is designed to study the size of population, Migration and urban population

UNIT I: Demography 20 hours

Definition, nature, scope and concepts. Study of population, relation between population and society, Basic Concepts of population: Fertility, mortality, migration, morbidity, Measurement of population, birth rate, death rate, density.

UNIT II: Theories of population 20 hours

Pre- and post Malthusian theories, population growth and development- Causes and issues, Ageing population-developing and developed countries.

UNIT III: Migration 20 hours

Meaning and definition, causes, Migration and urbanization, population movements & demographic change.

Reference Books:

- Bogue Donald – Demography
- Agarwala S – India's population problems, New Delhi, Tata Mcgraw Hill Publications, 1981.
- Bose Ashish – Patterns of population change.
- Rajashekhar & Rajesh – Janasankhya Shastra

Course Outcome:

1. The Course helped the students to understand the basic concepts of population.
2. The Course helped the students to understand the causes and consequences and measures to control population.
3. The Course helped the students to understand the concept of Migration.

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DEPARTMENT OF PHYSICS

Conducts

VALUE ADDED COURSE ON

SCIENCE BEHIND DEVICES OF DAILY UTILITY

20-30 SEPTEMBER 2021

LAST DATE FOR ENROLMENT
18-09-2021

Prof. H.C. Bellad
Head, Dept. of Physics

Dr. Y.C. Kamala
Principal

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Department of Physics

Value Added Certificate Course on

SCIENCE BEHIND DEVISES OF DAILY UTILITY

Students Notice

10th Sep 2021

This is informing to all the students that the department of Physics is conducting Add-on course on 'SCIENCE BEHIND DEVISES OF DAILY UTILITY' from 20th to 30th September 2021.All the Science Students are hereby informed to make the best use of the opportunity by enrolling the names with the Head of the Department of Physics on or before 16th September 2021.

The below mentioned senior faculty members are taking classes for the Add-on courses on various topics like Camera, Evolution of Blood pressure monitoring and pulse oximeter, An insight of Pacemakers and defibrillator, Magnetic Resonance Imaging, Cell Phones etc.

1. Dr. Vijayalakshmi Kotabagi, Professor and HOD, The Dept. of Medical Electronics, BMS College of Engineering, Bangalore.
2. Dr. Deepak Kumar, Consultant in MILE Lab, Electrical Engineer, Indian Institute of Science (IISc), Bangalore.
3. Dr. R. Raja Ramakrishna, PG Co-ordinator, NCJ, Bangalore.
4. Dr. Mamatha M N, Associate Professor, BMS College of Engineering, Bangalore.
5. Prof. Chethan M , Department of Physics, Jain University, Bangalore.
6. Prof. Vani A, Associate Professor, BMS College of Engineering, Bangalore.

Prof. H C Bellad
Physics HOD

Dr. Y C Kamala
Principal

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Department of Physics

Value Added Certificate Course on

SCIENCE BEHIND DEVISES OF DAILY UTILITY

Syllabus

(Duration of the course: 30 hours)

The syllabus is designed with respect to day today electronic gadgets. For all the topics – Introduction, Principle, Construction, Working, Applications, Limitations and Precautions will be discussed.

Syllabus------- "Weighing machine, Induction Stove/Coil, Musical Instruments, 3-D Printer, Mobile Phones, Blue Tooth, Home Appliances, Water Purifier, Thermometer, Visco Meter, Microscope, Insulin, Calorimeter, Conductometer, Magnetic Resonance Imaging, X-Rays, ECG, Waves and Vibrations, Tuning Fork, Camera, Charger, Water Level Controller, Pulse Oximeter, Radio/Television, Blood Pressure measuring instruments, Digital Thermometers, Network, Driverless Cars".

Note: Test will be conducted at the end of the course. Certificates of merit will be issued to all the participants.

Prof. H C Bellad
Physics HOD

Dr. Y C Kamala
Principal

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P. G. DEPARTMENT OF MATHEMATICS

conducts a MOOC course

LEARN TO PROGRAM: THE FUNDAMENTALS

By

University of Toronto, Canada

Duration: September - October 2021

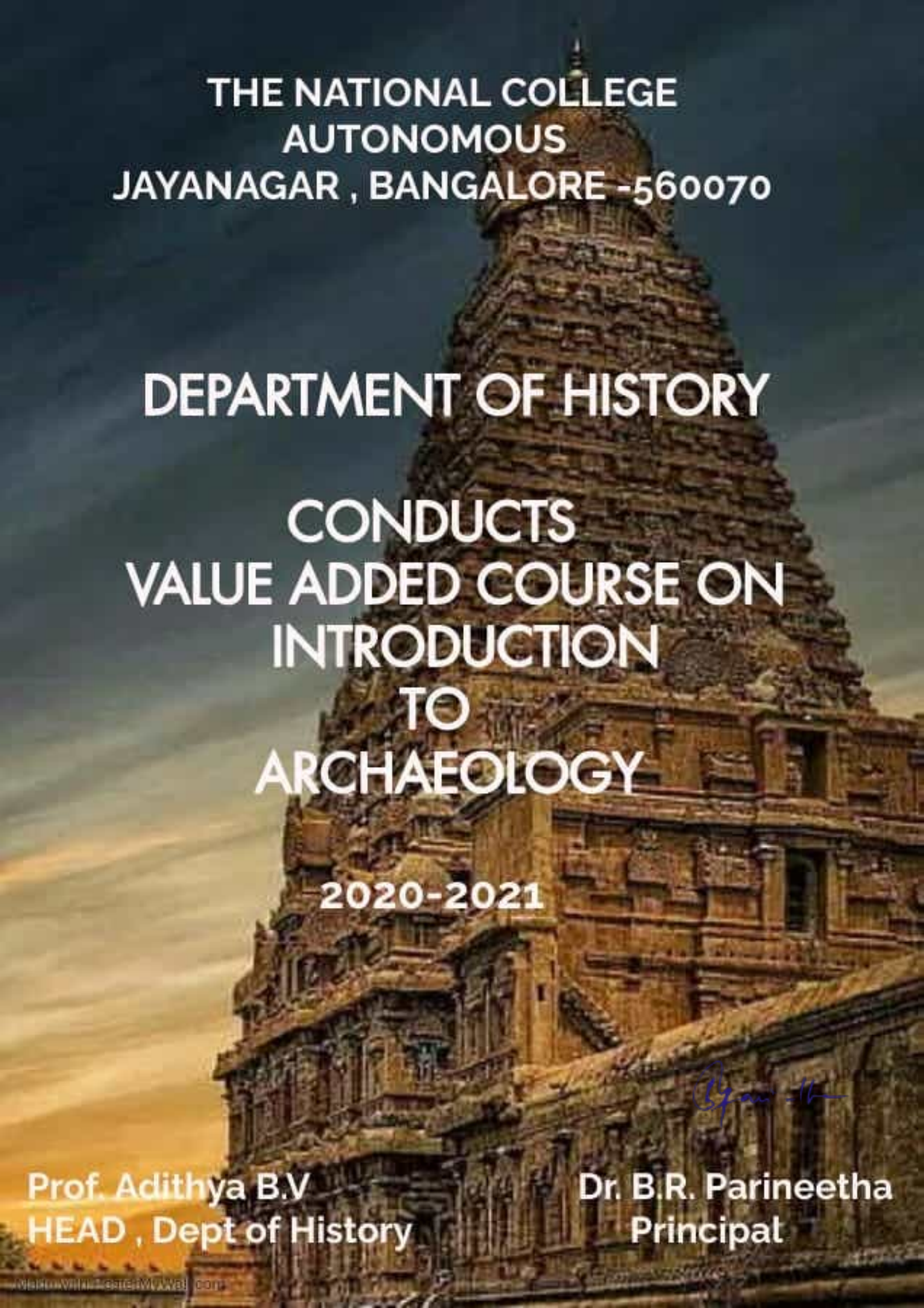
Interested students can register their names on or before August 28, 2021.

COURSE DURATION: 30 HOURS

Syllabus

Python, Variables and Functions
Strings and Designing Functions
Booleans, If Statements, For loops
While Loop, Lists and Mutability
Files, Nested lists and strings
Tuples and Dictionaries

DR. K. R. MADHURA
Head, P. G. Dept. of Mathematics



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DEPARTMENT OF HISTORY

CONDUCTS
VALUE ADDED COURSE ON
INTRODUCTION
TO
ARCHAEOLOGY

2020-2021

Prof. Adithya B.V
HEAD , Dept of History

Dr. B.R. Parineetha
Principal

THE NATIONAL COLLEGE

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DEPARTMENT OF HISTORY

CIRCULAR

Department of History is conducting Value Added Course for IV Semester BA students on the topic **Introduction to Archeology** from **1 March 2020** in the college class room. The course duration will 30 Hours . The course will be held every day from 3 pm to 4 pm .

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph 26549684 JAYANAGAR BANGALORE

Adithya BV

H.O.D. of History
The National Degree College
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Jayanagar, Bangalore - 70.

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

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DEPARTMENT OF HISTORY

VALUE ADDED COURSE SYLLABUS

Introduction to Archaeology 2020-2021

Course Outcomes (COs):

At the end of the course the student should be able to:

- Understand the concept of Archaeology as an ancillary for study of history
- Familiarize the students about scope of Archaeology.
- Understand the various tools and techniques in Archaeology

HOURS: 30

Content of Course 1
Unit – 1 Introduction
Chapter No. 1 Definition – Scope - Nature
Chapter No. 2 Concepts – Artifacts – Assemblage – Industry – Culture -Layer
Chapter No. 3 Kinds of Archaeology – Ethno, Marine and Salvage
Unit – 2 Archaeology by Period
Chapter No. 4. Lower Paleolithic – Middle Paleolithic – Upper PaleolithicMesolithic – Chalcolithic – Bronze age – Iron Age
Chapter No. 5. Development in the Global Context – From Antiquarians to Scientific Archaeology – Flinders Petrie- Pitt Rivers – Leonard Wooly.

Books for Reference

1. Agrawal D.P - Archaeology in India
2. Aiken M.J - Science based dating in archaeology
3. Allchin Bridget And Raymond Allchin - Rise of Civilization in India and Pakistan
4. Atkinson RJC - Field Archaeology
5. Basker .P - Techniques of Archaeological Excavation
6. Chakrabarthi D.K - A History of Indian Archaeology from the beginning to 1947

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Adithya B V

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Department of Journalism

presents

A Value Added Course

2020-21

BASIC CAMERA LIGHT & SOUND

Dr. S. Jayasimha
Dept. of Journalism

Dr. B. R. Parineetha
Principal

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DEPARTMENT OF JOURNAISM

VALUE ADDED COURSE

ON

"BASIC CAMERA LIGHT AND SOUND"

For 5th Semester Journalism Students

2020 - 2021

THE NATIONAL COLLEGE

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JAYANAGAR, BANGALORE – 560 070

Department of Journalism 2020-21

Value Added Course on

"Basic Camera Light and Sound"

Student Notice

This is informing to all the students of Journalism that the Department of Journalism is starting a Value Added Course on **"Basic Camera Light and Sound"** from 1st October to November 30th 2021. All the students of B.A. are hereby informed to make the best use of opportunity provided enrolling their names in the department on or before 25th of September 2021. Attendance is compulsory.

The objective of the course is to educate the students to take pictures in journalistic angle, to learn basic camera, types and technologies.

Duration is 35 hours.

HoD

Coordinator

THE NATIONAL COLLEGE
7th Block Jayanagar,
Bangalore - 560 070.

Principal

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Department of Journalism

"Basic Camera Light and Sound"

TIME TABLE

Tuesday	3.00 to 4.00
Saturday	2.00 t0 4.00

HoD

Head, Dept. of Journalism
THE NATIONAL COLLEGE
7th Block, Jayanagar,
Bangalore - 560070

Principal

PRINCIPAL
The National College
Jayanagar, Bangalore-70.

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JAYANAGAR, BANGALORE – 560 070

Department of Journalism

VALUE ADDED COURSE ON

"Basic Camera Light and Sound"

Duration: 35 Hours

Basics of Camera Light and Sound (Syllabus)

Objectives:

The students will identify different kinds of video camera, camera shots, movements, compositions, along with basic operations and functions of video camera. It also offers the knowledge of light and sound.

Unit –I

Introduction to camera, Parts of video camera and their functions, Types of Cameras, other equipment, depth of field and aperture control, Lenses –functions and its types.

Unit –II

Compositions –different types of shots, camera angles and camera movements, Aesthetics in visual communication, subject –camera relationship.

Unit III

Lights and its properties, different types of lights, other tools used in lighting – diffusers, reflectors, cutters and gels. Basic lighting techniques, accessories used in lighting

Unit IV

Audio fundamentals, various audio elements in video programmes – lip synchronized sound, voice music, ambience, sound effects, Types of microphones, Use of audio mixers for recording and editing of sound, different audio equipment for studio and location recording.

Reference Books

1. Handbook of Television Production – Herbert Zettl
2. Television Field production and reporting – Fred Shook
3. Writing and Producing Television news – Eric. K.Gormly
4. Television Production – Gerald Millerson

HoD

Principal
PRINCIPAL
The National College
Jayanagar, Bangalore-70.

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Autonomous

Jayanagara, Bengaluru - 560009

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Department of PG Commerece

Organizing

Value Added Course

on

Logistics and Supply Chain Management

Courses Start from

10 November, 2020

Enroll Now

Dr. N. Sathya Pal Sharma
HoD, PG Commerece

Dr. B.R. Parineetha
Principal

The National Education Society of Karnataka (R.)
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Jayanagara, Bengaluru
NAAC Accredited With Grade 'A'

Date: 21-10-2020

Student Notice

This is to inform to all the student's that the Department of PG Commerce is starting the Value added certificate Course in " Logistics and Supply Chain Management" from 10th November 2020 to 30th December 2020.

The objective of the course are

1. Applying the various dimensions of Management models to the College Environment.
2. Maximizing the Human Resources potential for efficient functioning of the Institution.
3. Commentating effectively the decisions, programes,and expectstionsof the management.
4. organising efficiently to minimise stress and nurture talent to create a congenial college climate.

All the PG commerce students are here by informed to register your name in the department on or before 30th of Oct 2020and make use of the opportunity provided. Regularity & Discipline is must.

Duration of the course is 40 Hours

Coordinator
PG Commerce

Principal
The National College
Autonomous
Jayanagar 7th Block,
B-ngalore - 560 070.

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Duration 46 hours

Syllabus

unit 1	Management as an art, & science, management of physical & material resources to optimize access to teaching, instructions, school function coordinating, strategies for maximising teacher potential, class room assessment techniques, pedagogy.
unit 2	Roles of manages: inter personal, informational roles, decisions roles, employability role.
unit 3	Leadership styles of Admin and teacher- Demand driven skills.

Enrollment of the students

Sl. No	Name of the Student
1	**Ganesh Gaowda K M**
2	**Jnanesh J Rannore**
3	**Harshitha N.**
4	**Karthik N.**
5	**Naveen S.**
6	**Pranam G F**
7	**Sathish S**
8	**Shravanthi C.**
9	**Sushma N.**
10	**Sudarshan D.**
11	**Tejeswini B.**

Coordinator
PG Commerce

Principal

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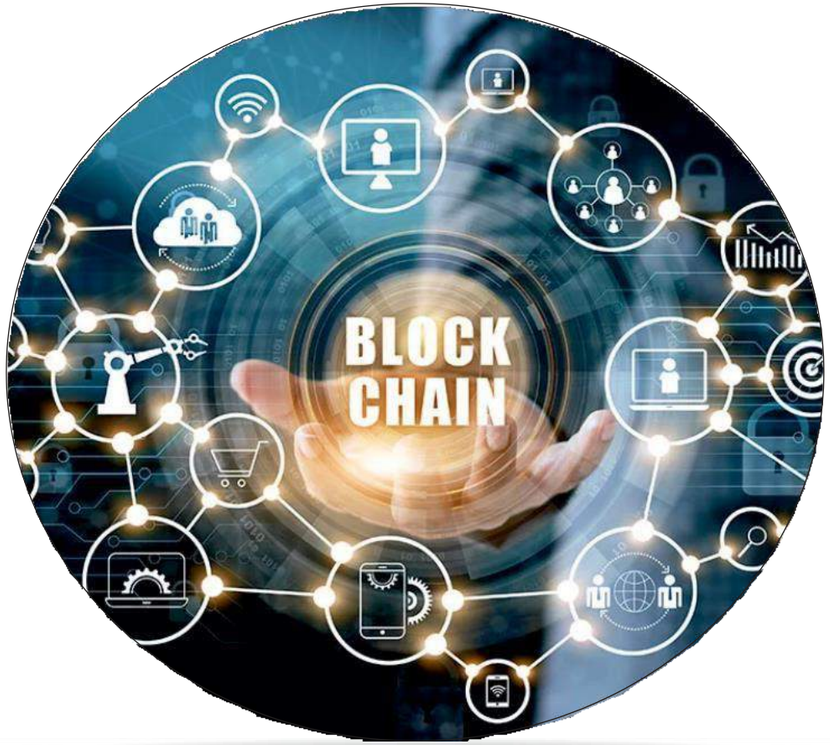

Department of Computer Science

Organizes

Value Added Course

2020-21

Block Chain and Ethereum

Resource person

Mr. Muthuram Govindarasu

Founder and CEO at Indigeneous Tech Pvt.Ltd.

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ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
ಸ್ಥಾಪನೆ: 1965 ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಅಡಿಯಲ್ಲಿನ ಸ್ವಾಯತ್ತ ಸಂಸ್ಥೆ

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Ref. No. NCJ/ Date:24/03/2021

Students Circular

This is to inform to all the students That the Department Of Computer Science is starting the Certification Course in "Block Chain" from 06-03-2021 to 09-06-2021.

The Objective is to provide a conceptual understanding of how blockchain technology can be used to innovate and improve business processes.

All the BCA students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head, Dept. of Comp. Science
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Principal
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Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

Blockchain & Ethereum Training Syllabus

Course Duration: 60hrs

Muthuram Govindarasu

Indigeneous Tech Private Limited, #165, 8th Cross, CIL Layout , Cholanayakanahalli, RT Nagar (PO), Bangalore-560032

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3) Characteristics of Blockchain 3
4) Technologies used in Blockchain 3
5) What is a Transaction? 3
6) What is a Block? 3
7) What is Block Header? 3
8) What is a Bitcoin Wallet? 3
9) What is a Blockchain Node? 3
10) What is Cryptography? 3
11) What is a Hash Function? 3
12) What is a Merkle tree? 3
13) Distributed Network 3
14) P2P Network 3
15) Distributed Ledger Technology 3
16) What is Mining? 3
17) Consensus Mechanism 3
18) Proof of Work (POW) 3
19) How a Bitcoin Blockchain works? 4
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21) Longest Chain rules 4
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23) Types of Blockchain 4

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2) All about Ether 4
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5) Smart Contracts 4
6) Ethereum Accounts 4
7) Ethereum Virtual Machine 4
8) Consensus Mechanism 4
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Blockchain Training Syllabus:

I. Blockchain Introduction

1) What is Blockchain?
2) Why it is called Blockchain?
3) History of Blockchain

II. Bitcoin Blockchain

1) What is Bitcoin?
2) What is Blockchain Technology?
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12) What is a Merkle tree?
13) Distributed Network
14) P2P Network
15) Distributed Ledger Technology
16) What is Mining?
17) Consensus Mechanism
18) Proof of Work (POW)

19) How a Bitcoin Blockchain works?

20) Block Confirmations

21) Longest Chain rules

22) Bitcoin Blockchain Performance and constraints

23) Types of Blockchain

III. Bitcoin Blockchain Hands on Practicals

1) Simulation of Test Bitcoin transactions across two blockchain Users

IV. Ethereum Blockchain

1) What is an Ethereum Blockchain

2) All about Ether

3) Transaction Fees and Gas

4) Ethereum Tokens

5) Smart Contracts

6) Ethereum Accounts

7) Ethereum Virtual Machine

8) Consensus Mechanism

9) Mining

10) Ethereum Wallets

11) NodeJS Basics and NPM

12) Solidity Language

13) Truffle IDE

14) Test Ethereum Blockchain (Ganache)

15) MetaMask Wallet

V. Ethereum Blockchain Hands-on Practicals

1) Ganache and Metamask based Blockchain demo Projects

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The National Education of Karnataka

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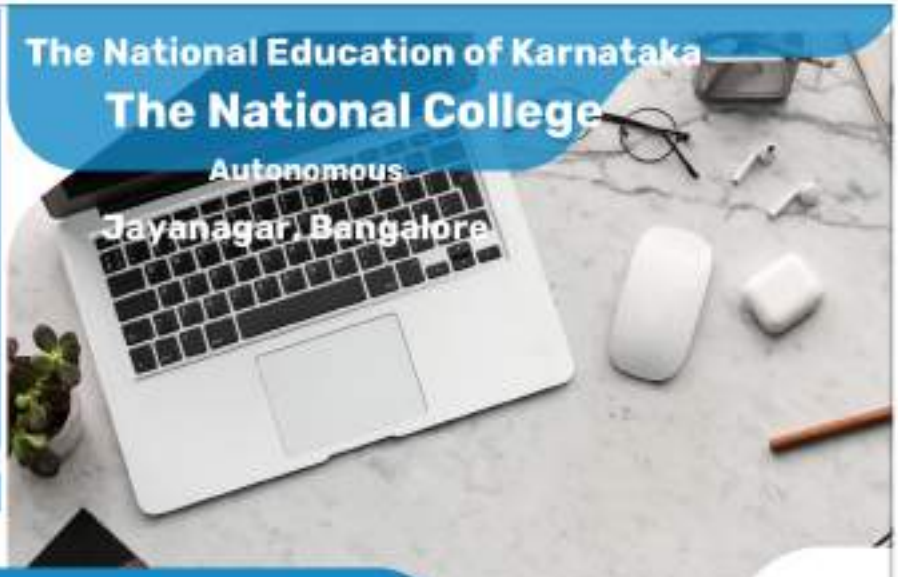

Department Of Computer Science

Organizing Add-on Course

On

Cloud Computing

2020-2021

ದಿ ನ್ಯಾಷನಲ್ ಕಾಲೇಜು
ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
ಸ್ಥಾಪನೆ: 1965 ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಅಡಿಯಲ್ಲಿನ ಸ್ವಾಯತ್ತ ಸಂಸ್ಥೆ

The National College
Jayanagar, Bangalore – 560070
ESTD. 1965 Autonomous Institute, Affiliated to Bangalore University

॥ ಶ್ರದ್ಧಾ ಹಿ ಪರಮಾ ಗತಿಃ ॥

Ref. No. NCJ/ Date:07/07/2021

Students Circular

This is to inform to all the students That the Department Of Computer Science is starting the Certification Course in "Cloud Computing" from 10-07-2021 to 25-09-2021.

The Objective is to provide a conceptual understanding of how Cloud Computing technology can be used to innovate and improve business processes.

All the BCA students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head, Dept. of Comp. Science
The National Degree College
(Autonomous)
Jayanagar, Bangalore - 560 070

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph 26549684 JAYANAGAR, BANGALORE-70

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

Cloud Computing Syllabus

Course Duration:35hrs

Module 1: Introduction to Cloud Computing

Overview of Cloud Computing- Definition, characteristics, and advantages, Evolution of Cloud Computing. **Service Models-**Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS). **Deployment Models**-Public Cloud, Private Cloud, Hybrid Cloud, Community Cloud. **Key Cloud Providers**-Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform (GCP).

Virtualization and Infrastructure: Virtualization Basics-Introduction to virtual machines**,** Hypervisors and containerization. **Cloud Infrastructure Components-** Compute resources, Storage options, Networking in the cloud.

Module 2: Cloud Security

Security in the Cloud-Identity and Access Management (IAM)**,** Encryption and Key Management**,** Network Security in the cloud.

Compliance and Legal Considerations- GDPR, HIPAA, and other regulations**,** Contractual considerations in cloud services

Module 3: Cloud Service Models Deep Dive

IaaS in-depth - Virtual Machines, Containers**,** Auto-scaling and Load Balancing

PaaS in-depth - App services, databases**,** Serverless Computing

SaaS in-depth - Examples and use cases**,** Customization and integration options

Module 4: Cloud Migration and Management

Cloud Migration Strategies- Lift and Shift, Re-platforming, Refactoring**,** Migration tools and best practices

Cloud Management and Monitoring- Cloud Management Platforms**,** Monitoring tools and strategies.

Module 5: Emerging Trends and Special Topics

Edge Computing and IoT - Overview and use cases

Serverless Computing - Concepts and benefits

Big Data and Analytics in the Cloud - Introduction and use cases

The National Education Society of Karnataka (R.)

The National College

Autonomous

Jayanagara, Bengaluru

Department of Computer Science

Organizes

Value Added Course

2020-21

Machine Learning

ದಿ ನ್ಯಾಷನಲ್ ಕಾಲೇಜು
ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
ಸ್ಥಾಪನೆ: 1965 ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಅಡಿಯಲ್ಲಿನ ಸ್ವಾಯತ್ತ ಸಂಸ್ಥೆ

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Jayanagar, Bangalore – 560070
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॥ ಶ್ರದ್ಧಾ ಹಿ ಪರಮಾ ಗತಿಃ ॥

Ref. No. NCJ/ Date:26/03/2021

Students Circular

This is to inform to all the students That the Department Of Computer Science is starting the Certification Course in "Machine Learning" from 1-04-2021 to 03-06-2021.

The Objective is to understand the basic theory underlying machine learning. To be able to formulate machine learning problems corresponding to different applications. To understand a range of machine learning algorithms.

All the BCA students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head Dept. of Comp. Science
The National Degree College
(Autonomous)
Jayanagar, Bangalore - 560 070

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph 26549684 JAYANAGAR, BANGALORE-70

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

Machine Learning Professional Training Syllabus

Course description & objectives: The main objective of this course is to enabling the student with basic knowledge on the techniques to build an intellectual machine for making decisions behalf of humans. This course covers the techniques on how to make learning by a model, how it can be evaluated, what are all different algorithms to construct a learning model.

Course Outcomes: ·

- Basics on what is a learning machine.
- · Basic mathematics behind learning algorithms.
- · Different types of leaning. ·
- Finally, How to construct a learning machine

Course Duration: 60hrs

Muthuram Govindarasu

th

Contents

Machine Learning Professional Training Syllabus for NCJ 3

Module-1: Introduction to Machine Learning (ML) 4

Module-2: Python Basics 4

Module-3: Python Libraries 5

Module-4: Machine Learning (ML) 5

Module-4A: Supervised Learning 5

1) Regression 5
2) Classification 5

Module-4B: Unsupervised Learning 6

1) Clustering 6
2) Association 6
3) Dimensionality Reduction 6
4) Recommender Systems 7

Module-4C: Semi-Supervised Learning 7

1) Label Encoding Method 7
2) Pseudo Labeling Method 7

Module-4D: Reinforcement Learning 7

1) Q-Table Method 7

Module-5: Deep Learning (DL) 7

1) Artificial Neural Network (ANN) 7
2) Convolutional Neural Network (CNN) 7
3) Recurrent Neural Network (RNN) 7
4) Recurrent Neural Network (RNN) with Long Short-Term Memory (LSTM) 7

Module-6: Natural Language Processing (NLP) 8

1) Introduction to NLP 8
2) Text Preprocessing 8
3) Text Summarization 8
4) Sentiment Analysis 8
5) Speech Recognition 8

Module-7: Time Series Analysis 8

1) Autoregression (AR) 8
2) Moving Average (MA) 8

3) Autoregressive Moving Average (ARMA) 8
4) Autoregressive Integrated Moving Average (ARIMA) 8
5) Seasonal Autoregressive Integrated Moving-Average (SARIMA) 8
6) Seasonal Autoregressive Integrated Moving-Average with Exogenous Regressors (SARIMAX) 8

Machine Learning Professional Training Syllabus for NCJ:

Module Number	Module Title	Sub-Modules Training Duration in Hours	Modules Training Duration in Hours
Module-1	Introduction to Machine Learning (ML)		2
Module-2	Python Basics		2
Module-3	Python Libraries		5
Module-4	Machine Learning (ML)		
Module-4A	Supervised Learning		12
	Regression (9 Algorithms)	6	
	Classification (11 Algorithms)	6	
Module-4B	Unsupervised Learning		15
	Clustering (5 Algorithms)	5	
	Association (3 Algorithms)	3	
	Dimesionality Reduction (2 Methods)	2	
	Recommender Systems	5	
Module-4C	Semi-Supervised Learning		4
	Label Encoding Method	2	
	Pseudo Labelling Method	2	
Module-4D	Reinforcement Learning		2
	Q-Table Method	2	
Module-5	Deep Learning (DL)		8
	Artificial Neural Network (ANN) Model	2	
	Convolutional Neural Network (CNN) Model	2	
	Recurrent Neural Network (RNN) Model	2	
	RNN Model with LSTM (Long-Short Term Memory)	2	
Module-6	Natural Language Processing (NLP)		5
Module-7	Time Series Analysis		5
Total			60

Module-1: Introduction to Machine Learning (ML)

Introduction about the below given topics:

a) **Data Science**
b) **Data Engineering**
c) **Machine Learning**
d) **Artificial Intelligence**
e) **Data Scientist**
f) **Data Engineer**
g) **Machine Learning Engineer**
h) **Machine Learning Professional**
i) **Data Analytics Vs Data Intelligence Vs Data Science**

Module-2: Python Basics

a) **Variables and Variable Scope**
b) **Built-in Datatypes**
c) **Lists**
d) **Tuples**
e) **Sets**
f) **Dictionaries**
g) **For Loops**
h) **While Loops**
i) **If-else Statements**
j) **Functions and Print Functions**
k) **Modules**
l) **Operators**
m) **File Handling**
n) **Lambda Functions**
o) **Classes and Objects**
p) **Iterators**
q) **Arrays**
r) **JSON format**
s) **User Input and Output Formatting**
t) **Math Functions**

Note: All the above given topics will be explained and all the topics will be covered with relevant Python programs.

Module-3: Python Libraries

a) **NumPy**
b) **Pandas**
c) **Matplotlib**
d) **Seaborn**
e) **SciPy**
f) **Scikit or Sklearn**

Note: All the above given topics will be explained and all the topics will be covered with relevant Python programs.

Module-4: Machine Learning (ML)

Module-4A: Supervised Learning

1) Regression

Algorithms:

a) **Linear Regression**
b) **Polynomial Regression**
c) **KNN (K-Nearest Neighbor) Regressor**
d) **Random Forest Regressor**
e) **Decision Tree Regressor**
f) **Support Vector Regressor**
g) **Ridge Regressor**
h) **Lasso Regressor**
i) **ElasticNet Regressor**

Note: All the above given algorithms will be explained and all the algorithms will be covered with relevant Python programs and datasets.

2) Classification

Algorithms:

a) **Logistic Regression**
b) **KNN (K-Nearest Neighbor) Classifier**
c) **SVC (Support Vector Classifier)**
d) **Naive Bayes Classifier**
e) **Decision Tree Classifier**
f) **Random Forest Classifier**

g) **Ada Boosting**
h) **Gradient Boosting**
i) **Extreme Gradient (XG) Boosting**
j) **Light GBM (Gradient Boosting Machine)**
k) **Cat Boosting**

Note: All the above given algorithms will be explained and all the algorithms will be covered with relevant Python programs and datasets.

Module-4B: Unsupervised Learning

1) **Clustering**

Algorithms:

a) **KMeans**
b) **Mean-Shift Clustering**
c) **Hierarchical Clustering**
d) **Density-based spatial clustering of applications with noise (DBSCAN)**
e) **Expectation-maximization based**

Note: All the above given algorithms will be explained and all the algorithms will be covered with relevant Python programs and datasets.

2) **Association**

Algorithms:

a) **Apriori**
b) **Equivalence Class Transformation (ECLAT)**
c) **Frequent Pattern (FP) Growth**

Note: All the above given algorithms will be explained and all the algorithms will be covered with relevant Python programs and datasets.

3) **Dimensionality Reduction**

a) **Principal Component Analysis (PCA)**
b) **Linear Discriminant Analysis (LDA)**

4) **Recommender Systems**

I. **Personalized**
   1) **Content Based**
   2) **Collaborating Filtering**
      a) **Model (ML Algorithms) Based**
      b) **Memory Based**
         i. **User Based**
         ii. **Item Based**
   3) **Hybrid Method**

II. **Non-Personalized**

Note: All the above given topics will be explained and all the topics will be covered with relevant Python programs and datasets.

Module-4C: Semi-Supervised Learning

1) **Label Encoding Method**
2) **Pseudo Labeling Method**

Note: All the above given methods will be explained and all the methods will be covered with relevant Python programs and datasets.

Module-4D: Reinforcement Learning

1) **Q-Table Method**

Note: The above given method will be explained and it will be covered with relevant Python programs and datasets.

Module-5: Deep Learning (DL)

1) **Artificial Neural Network (ANN)**
2) **Convolutional Neural Network (CNN)**
3) **Recurrent Neural Network (RNN)**
4) **Recurrent Neural Network (RNN) with Long Short-Term Memory (LSTM)**

Note: The above given Networks will be explained and they will be covered with relevant Python programs and datasets.

Module-6: Natural Language Processing (NLP)

1) **Introduction to NLP**
2) **Text Preprocessing**
3) **Text Summarization**
4) **Sentiment Analysis**
5) **Speech Recognition**

Note: The above given topics will be explained and applicable topics will be covered with relevant Python programs and datasets.

Module-7: Time Series Analysis

1) **Autoregression (AR)**
2) **Moving Average (MA)**
3) **Autoregressive Moving Average (ARMA)**
4) **Autoregressive Integrated Moving Average (ARIMA)**
5) **Seasonal Autoregressive Integrated Moving-Average (SARIMA)**
6) **Seasonal Autoregressive Integrated Moving-Average with Exogenous Regressors (SARIMAX)**

Note: The above given topics will be explained and all the topics will be covered with relevant Python programs and datasets.

Note: All the important topics given above will have projects which will meet the project requirements of the BCA degree. Every 3 students will have one project.

The National College

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P. G. DEPARTMENT OF MATHEMATICS

conducts a MOOC course

INTRODUCTION TO DATA ANALYSIS USING EXCEL

By

RICE University, U.S.A.

Duration: June - July 2022

Interested students can register their names on or before June 20, 2022.

COURSE DURATION: 30 HOURS

Syllabus

Introduction to Spreadsheets
Spreadsheet functions to organize data
Introduction to filtering, pivot tables and charts
Advanced graphing and charting

DR. K. R. MADHURA
Head, P. G. Dept. of Mathematics

The National Education Society of Karnataka (R.)
The National College
Autonomous
Jayanagara, Bengaluru

Department of Economics
Organizes

Value Added Course 2021-22
on

Goods and Service Tax (GST)

Dr. Nagachampa Jain
Head of the Department
Dept. of Economics

Dr. Y. C. Kamala
Principal

THE NATIONAL COLLEGE
AUTONOMOUS
JAYANAGAR, BANGALORE-560070
The Department of Economics

Value Added Certificate Course on

"Goods and Service Tax (GST)"2021-2022

Students Notice

This is informing to all the students that the department of Economics is starting the Add-on course on "GOODS AND SERVICE TAX (GST)" from 15th October 2021. All the Economics students are hereby informed to make the best use of the opportunity by enrolling their names with the Head of the Department of Economics, on or before 10th October 2021.

Head
Department of Economics
he National College, Autonomous
ayanagar, Bangalore - 560 070

Kamala Y.C.
Principal
The National College
Jayanagar, Bangalore-70

JAYANAGAR, BANGALORE-70 THE NATIONAL COLLEGE AUTONOMOUS Ph: 26569684

The National College, Autonomous
Jayanagar, Bangalore
Department of Economics
Value Added Course on - Goods and Service Tax (GST) 2021-2022

Syllabus

Duration: 35 Hours

OBJECTIVES:

1.To familiarize students about the fundamentals of the prescribed topic.
2.To create an interest among students to the related topic.
3.Encourage the students to actively participate to have a hand on experience on the topic

Syllabus

Module-1 Introduction

Concept of tax, Classification of tax, types of taxes, Need for collecting tax.

Module-2 Federal Tax Structure

Centre-State financial relations, Structure, Role of Centre and state.

Module-3 Goods and Service Tax

Concept of GST, Determining factors, Basic calculation, Merits and Demerits, Difference between SGST and GST.

Module-4 GST and the Government's Tax policy

GST Bill, Highlights of Bill of the Government of India.

Reference Books,

1.Public Finance- B.P.Tyagi
2.Indian Economy- KPM Sundaram

Head
Department of Economics
The National College, Autonomous
Jayanagar, Bangalore - 560 070

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Jayanagar, Bangalore-70

The National Education Society of Karnataka (R.)

The National College

AUTONOMOUS

Jayanagar, Bangalore -70

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Dept. of History

Conducts

A Value Added Course

on

INTRODUCTION TO INDIAN CULTURE

2021-22

Prof. Adithya B V
HOD, Depertment of History

Prof. H C Bellad
College Council Secretary

Dr. Y. C. Kamala
Principal

THE NATIONAL COLLEGE

AUTONOMOUS

JAYANAGAR , BANGALORE -560070

DEPARTMENT OF HISTORY

CIRCULAR

Department of History is conducting Value Added Course for VI Semester BA students on the topic **Introduction to Indian Culture** from **1 February 2021** in the college class room. The course duration will 30 Hours . The course will be held every day from 3 pm to 4 pm .

Kamala Y-C.
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H.O.D. of History
The National Degree College
AUTONOMOUS
Jayanagar, Bangalore - 70.

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AUTONOMOUS

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DEPARTMENT OF HISTORY

VALUE ADDED COURSE

INTRODUCTION TO INDIAN CULTURE

2021-22

Module1-

Introduction – Meaning of culture – forms of Culture – Hinduism – Major principles- Jainism – Buddhism- Islam – Christianity. (5 Hours)

Module -2

Philosophy – Shakta Cult, Shaivism, Vaishnavism, Advaitha, Dvaitha, Vishistadvaitha, Veerashaivism. (10 Hours)

Module-3

Indian Literature – Ancient, Medival and Modern Literature. (5 Hours)

Module -4

Indian Art – Architecture – Ancient, Medival and modern -Sculpture and painting – Indian Dance Forms- Indian Music. (10 Hours)

BOOKS FOR REFERENCES :

1. A.L. Basham – The wonder that was India.
2. S. Radha Krishnan – Culture of India
3. Sachin Shekhar Biswas – Protecting the cultural Heritage.

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Jayanagar, Bangalore - 70.

Kamala Y.C.
PRINCIPAL
The National College
Jayanagar, Bangalore-70.

The National College 7th Block Jayanagar, Bangalore-70 (Autonomous)

ದಿ ನ್ಯಾಷನಲ್ ಎಜುಕೇಷನ್ ಸೊಸೈಟಿ ಆಫ್ ಕರ್ನಾಟಕ (ರಿ)

ನ್ಯಾಷನಲ್ ಕಾಲೇಜು, ಸ್ವಾಯತ್ತ

ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070

ಕನ್ನಡ ವಿಭಾಗ

ಪರಿಚಯಿಸುತ್ತಿದೆ

ನಾಟಕ ಮತ್ತು ಸಾಹಿತ್ಯ

ಉಪ ಪಠ್ಯಕ್ರಮ (2021–22)

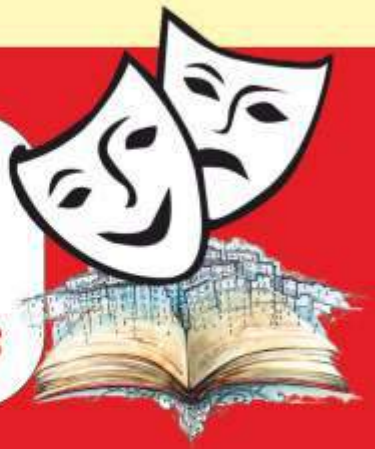
(Drama and Literature)

Add on Course (2021-22)

30 ಗಂಟೆಗಳ ಪಠ್ಯಕ್ರಮ

ನುರಿತ ಉಪನ್ಯಾಸಕರಿಂದ ಬೋಧನೆ

ಸಂಪನ್ಮೂಲ ವ್ಯಕ್ತಿಗಳು ಹಾಗೂ ವಿಷಯ ತಜ್ಞರಿಂದ ಕಾರ್ಯಾಗಾರ



ಆಸಕ್ತ ವಿದ್ಯಾರ್ಥಿಗಳು ನೋಂದಾಯಿಸಿಕೊಳ್ಳಿ

ಎಲ್ಲರಿಗೂ ಆದರದ ಸ್ವಾಗತ

ಡಾ. ಬಿ. ಪಾಪಣ್ಣ
ಮುಖ್ಯಸ್ಥರು, ಕನ್ನಡ ವಿಭಾಗ

ಪ್ರೊ. ಹೆಚ್. ಸಿ. ಬೆಲ್ಲದ
ಕಾರ್ಯದರ್ಶಿಗಳು, ಕಾಲೇಜು ಅಧ್ಯಾಪಕ ಮಂಡಳಿ

ಡಾ. ವೈ.ಸಿ. ಕಮಲ
ಪ್ರಾಂಶುಪಾಲರು

An IQAC Initiative

Value Added Certificate Course in

"NATAKA MATHU SAHITHYA"

STUDENTS NOTICE

This is informing to all the students that the Department of Kannada is starting the Certificate course in "NATAKA MATHU SAHITHYA" from 4TH May to 29th June 2022.

The objective of this course is to enhance the skills in Acting, writing and direction in Drama and Literature field.

All the Literature students are hereby informed to make the best use of the opportunity provided by enrolling their names in the Department on or before Attendance is compulsory.

Duration of the course is 30 hours.

Course Coordinator
ಕನ್ನಡ ವಿಭಾಗ
ನ್ಯಾಷನಲ್ ಕಾಲೇಜು ಸ್ವಾಯತ್ತ
ಜಯನಗರ, ಬೆಂಗಳೂರು-560 070
Date : 29.04.2022

PRINCIPAL
Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

The National Degree College * Autonomous Bangalore-70. * 7th Block, Jayanagar

An IQAC Initiative

Value Added Certificate Course in

"NATAKA MATHU SAHITHYA"

TIME TABLE

Name of the Staff Members : Dr. Papanna, Dr. Savitha V, Dr. Rajanna.

Duration from 4TH May to 29th June 2022.

DAY	TIME
WEDNESDAY	3.30 TO 5.30
SATURDAY	1.30 TO 3.30

The National Degree College Autonomous Bangalore-70 7th Block, Jayanagar

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Jayanagar 7th Block
Bangalore - 560 070

ಮುಖ್ಯಸ್ಥರು
ಕನ್ನಡ ವಿಭಾಗ
ನ್ಯಾಷನಲ್ ಕಾಲೇಜು ಸ್ವಾಯತ್ತ
ಜಯನಗರ, ಬೆಂಗಳೂರು-560 07

Name of The programme : B.A/B.Sc./B.C.A/B.Com,

Category of Course : Value Added Course

Name of The Course : Drama and literature

Module No.1 : Introduction to Drama and Theatre

- Meaning, definitions and Nature of Drama and Theatre
- Origin and development of Theatre
- Aims and objectives of Theatre Arts
- Folk Theatre Nature and Stage Techniques
- Karnataka folk forms Moodala paaya (Doddata, Sannata), Yakshagana, Gombeyata
- Karnataka Theatre, professional and Amature Theatre in Karnataka

Module No.2 : Acting Stage -1

- Theatre Exercises, Theatre games
- Voice and Speech works,
- Reading different types narrations, News reading, Poetry preadaptation
- Story telling, Dialogue delivery, Mime, mono acting.

Module No.3. Script Writing

- The basic concept of Play Writing,
- development of the theme, Plot, Character Dailouge,
- Script writing (skit) and Staging.

Department Chairman/Co-ordinator

ಮುಖ್ಯಸ್ಥರು
ಕನ್ನಡ ವಿಭಾಗ
ನ್ಯಾಷನಲ್ ಕಾಲೇಜು ಸ್ವಾಯತ್ತ
ಜಯನಗರ, ಬೆಂಗಳೂರು-560 070

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Bangalore - 560 070

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Department of English

offering

Value Added Course on

Advanced Conversational English

2021-22

Unlock Fluent Conversations, Speak with Confidence

Hurry up and avail this opportunity

Dr. C Vijayalakshmi
HOD, Depertment of English

Dr. Y. C. Kamala
Principal

THE NATIONAL COLLEGE

AUTONOMOUS
JAYANAGAR, BANGALORE - 560 070

DEPARTMENT OF ENGLISH

Value Added Course -2021-22

CIRCULAR

The department of English will conduct Value Added Course in English on the topic, *Advanced Conversational English* for the students of BA from the second week of May, 2022. Duration of the course is 50 hours.

Thank you

C. Vlakshmi

Dr. Chintha Vijayalakshmi
Head, Dept of English
The National Degree College
(Autonomous) 7th Block,
Jayanagar, Bangalore - 70

Kamala Y.C.
PRINCIPAL
The National Degree College
Jayanagar, Bangalore - 70

Certificate course

Advanced Conversational English

Duration: 14 weeks (50 hours)

Course Outcomes:

After completing the course, the student teacher will be competent in:

- Conducting self in public with basic ethics
- Developing accuracy and fluency in speaking English with adequate vocabulary for prescribed situations.
- Acquiring competencies in usage of grammatically sound language

S.No.	Description	Contact Hours
1	Basic Ethics • Brushing up on manners • How to conduct yourself in public • Respecting other's space	5
2	Telephone Ethics • How to answer the phone • Tone, volume, language • Leaving messages	5
3	Vocabulary Enhancement • Words for every day usage • Words to be used around the home • Making yourself audible and being articulate • Life in the fast lane	5
4	English Grammar • Becoming fluent • The common grammar mistakes often overlooked	5
5	Confusing English Words Unraveling the mystery	5
6	Arranging for Accommodation • Hotel • Breakfast	5
7	Find your way about – modes of transportation • Booking a cab	5

C. Vakshmi
Head, Dept of English
The National Degree College
(Autonomous) 7th Block,
Jayanagar, Bangalore - 70

Kamala Y.C.
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Jayanagar

	• Booking an auto • Taking a bus/cycling	
8	Going on a Shopping Spree • Thinking about budgeting • Making a shopping list • Finding our information, directions to the mall or shopping area	5
9	Dealing with Medical Emergencies - First Aid - Calling an ambulance - Common ailments - Medical vocabulary/terminology	5
10	Preparing for Work Life • Making a check list • Dress code • Facing an interview	5
	Total	50

C. Vakshmi
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Jayanagar, Bangalore - 70

THE NATIONAL EDUCATION SOCIETY OF KARNATAKA (R)

THE NATIONAL COLLEGE
AUTONOMOUS
JAYANAGAR, BANGALORE-70
NAAC Accrediated with Grade ' A '

DEPT. OF COMMERCE ORGANISING

VALUE ADDED COURSE ON

CONSUMER BEHAVIOUR

2021-22

Kamala Y.C.
Principal
The National College
Autonomous
Jayanagar 7th Block,
B-ngalore - 560 070

PROF SOWMYA SHREE
HEAD, DEPT OF COMMERCE

Y.C. KAMALA
PRINCIPAL

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AUTONOMOUS
JAYANAGAR, BANGALORE - 560 070
Accredited 'A' Grade by NAAC

UG - DEPARTMENT OF COMMERCE

Ref:

Date: 03-09-2021

CIRCULAR

The Department of Commerce is conducting an **ADD- ON COURSE** on the title ***"Consumer Behaviour".***

Students who are interested in participating in the add -on course may kindly give your names to Commerce Department faculty member Prof.Arun Kumar G S on or before 3rd September 2021 during the college timings.

Soumyashree

HOD
Department of Commerce

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph. 26549684 JAYANAGAR, BANGALORE

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Autonomous
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B-ngalore - 560 070

Department of Commerce

ACADEMIC YEAR 2021-22

ADD ON COURSE ON 'CONSUMER BEHAVIOUR'

TIME TABLE

NAME OF THE STAFF MEMBER: PROF. ARUN KUMAR G S

DESIGNATION: ASSISTANT PROFESSOR OF COMMERCE

DURATION: SEPTEMBER 2021 TO OCTOBER 2021

DAY	TIME
MONDAY	3 PM TO 4 PM
WEDNESDAY	3 PM TO 4 PM
SATURDAY	2 PM TO 4 PM

SIGNATURE OF THE STAFF MEMBER INCHARGE:

SIGNATURE OF THE HoD

HOD - Commerce
The National College
Autonomous
7th Block, Jayanagar,
BENGALURU - 560 070

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph: 26549684 JAYANAGAR BANGALORE

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

Programme Code: B.Com

ADD ON COURSE

SYLLABUS

CONSUMER BEHAVIOUR

Course Objectives: **TOTAL HOURS: 30**

- To understand the conceptual foundations of consumer buying behaviour.
- To create awareness of the theories of motivation and perceptions as applied in consumer behaviour.
- To acquaint with the communication and consumer decision making.

Learning Outcome:

- ✓ It able the students to understand the importance of consumer behaviour in the overall marketing process.
- ✓ At end of the course, the basic analytic frameworks and concepts that managers use to better understand their customers, as well as broader market place behaviour and consumption trends.

Course Content:

Unit 1: INTRODUCTION **06 Hours**

Introduction to Consumer Behaviour - A managerial & consumer perspective; why study consumer behaviour? ; Applications of consumer behaviour knowledge; current trends in Consumer Behaviour; Market segmentation & consumer behaviour.

Unit 2: INDIVIDUAL DETERMINANTS OF CONSUMER BEHAVIOUR **06 hours**

Consumer needs & motivation; personality and self-concept; consumer perception; learning & memory; nature of consumer attitudes; consumer attitude formation and change.

Unit 3: ENVIRONMENTAL DETERMINANTS OF CONSUMER BEHAVIOUR **06 hours**

Family influences; the influence of culture; subculture & cross cultural influences; group dynamics and consumer reference groups; social class & consumer behaviour.

Unit 4: CONSUMER'S DECISION MAKING PROCESS **06 hours**

Problem recognition; Search & Evaluation; Purchase processes; Post-purchase behaviour; personal influence & opinion leadership process; diffusion of innovations; Models of Consumer Behaviour; Researching Consumer behaviour; consumer research process.

Unit 5: CONSUMER SATISFACTION & CONSUMERISM **06 hours**

Concept of Consumer Satisfaction; Working towards enhancing consumer satisfaction; sources of consumer dissatisfaction; dealing with consumer complaint. Concept of consumerism; consumerism in India; the Indian consumer; Reasons for growth of consumerism in India;

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JAYANAGAR, BANGALORE- 560 070

Department of Psychology

Conducting

Value Added Certificate Course on

MENTAL HEALTH AWARENESS

from **3rd September 2022**

Prof. Geetha Srinivas
HoD, Psychology, The NCJ

Dr. Y.C. Kamala
Principal, The NCJ

THE NATIONAL COLLEGE

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JAYANAGAR, BANGALORE-560070
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Department of Psychology 2022- 2023

An IQAC Initiative

Value Added Certificate Course In Mental Health Awareness

Student Notice

This is to inform that all students that Department of Psychology is conducting a Value Added Certificate course on Mental Health Awareness from 3rd September 2022.

The main objective of this course in to educate students and create awareness about basics of mental health among young minds.

All the students are hereby informed to make best use of this opportunity by enrolling their names in the department on or before 30th August 2022. Attendance is compulsory

Duration of this course is 30 hours theory and 30 hours of Practical.

Course Co-Ordinator

Department of Psychology
The National College
Jayanagar, Bangalore - 70.

Date 17th August 2022

Principal

IQAC Co-Ordinator

THE NATIONAL COLLEGE

AUTONOMOUS

JAYANAGAR, BANGALORE-560070

Accredited 'A' grade by NAAC

Value Added Certificate Course In Mental Health Awareness

Time Table

Name of the Faculties: Prof Geetha Srinivas, Prof Anupama MS and Prof Jayanth.M

Designation: Assistant Professors of Psychology Department.

Duration of the Course : 3rd September to 3rd October 2022

DAY	TIME
Saturday	2:00 PM to 5:00 PM
Monday	2:00 PM to 5:00 PM

Course Co-Ordinator

Head
Department of Psychology
The National College
Jayanagar, Bangalore - 70.

Principal

IQAC Co-Ordinator

THE NATIONAL COLLEGE

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JAYANAGAR, BANGALORE-560070

Accredited 'A' grade by NAAC

Value Added Certificate Course In Mental Health Awareness

Duration : 30 Hours Theory & 30 Hours Practical.

SYLLABUS

Unit 1	**Mental Health and Wellbeing** • Understanding concept of Mental Health. • Importance of Mental Health in daily life. • Common misconceptions and stigma.
Unit 2	**Stress Management Techniques** • Identifying Stressors. • Stress Management Techniques. • Relaxation Techniques (Yoga & Meditation).
Unit 3	**Coping Strategies** • Healthy Coping Mechanisms. • Recognizing signs of Distress. • Seeking support when needed.
Unit 4	**Mental Health Awareness and Support** • Common Mental Health Disorders (Anxiety Depression etc.) • How to recognize Mental Health Issues in Oneself and Others. • Resources and Support Available.
Unit 5	**Self-Care and Wellbeing Planning.** • Importance of Self-Care. • Creating a Personal Wellbeing. • Setting and Prioritizing Wellbeing Goals.
Unit 6	**Practical Sessions Related to Mental Health Awareness 30 hours**

Course Co-Ordinator

Principal

Head
Department of Psychology
The National College
Jayanagar, Bangalore - 70.

IQAC Co-Ordinator

॥ श्रद्धाहि परमा गतिः ॥

The National College
Jayanagar

Department of Chemistry

Value Added Course
on

BUSINESS SKILLS FOR A CHEMIST

10/04

TO

10/07

2021

2p.m. to 4 p.m. |Saturdays

Faculty:

Radhika S M
Sowmyashree

THE NATIONAL COLLEGE

JAYANAGAR, BANGALORE

DEPARTMENT OF CHEMISTRY

VALUE ADDED COURSE ON

"BUSINESS SKILLS FOR A CHEMIST"

TOTAL: 36 HRS

DRUGS **3 HRS**

Definition, structure of paracetamol, synthesis and uses of paracetamol.

OILS, FATS, WAXES AND SOAP **8 HRS**

Distinction between oils and fats properties. Classification and manufacture of soap. The hot and cold process. Batch process. Laundry soap, toilet soap, transparent soap, cleansing action of soaps.

Waxes - Classification of waxes. Some common waxes. Synthetic waxes. Analysis of waxes.

PRACTICALS **9 HRS**

Preparation of paracetamol.

Preparation of soap.

Preparation of wax.

BUSINESS SKILLS

INTRODUCTION TO MARKETING **3 HRS**

Definition, nature, scope and importance of marketing. Modern concept of marketing.

PRICING **4 HRS**

Pricing objectives, price determinations, factors influencing pricing policy, method of pricing policies and strategies.

PROMOTIONS **5 HRS**

Nature and importance of promotion, promotional methods – advertising decisions. Sales promotion. Evaluation of advertising.

RECENT TRENDS IN MARKETING **4 HRS**

E-business, tele-marketing, M-business, Virtual marketing. Retail marketing. Concept marketing.

Reference Books

'MARKETING MANAGEMENT' - BY K. RAMACHANDRA, B. CHANDRASHEKHAR, AND SUDHAMADWARAJ

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DEPARTMENT OF CHEMISTRY

CIRCULAR

Department of Chemistry is conducting a Value-added course on "**Business skills for a Chemist**" starting from 10-4-2021 to 10-07-2021 for B.Sc. Students. Interested students can register their names. Classes will be conducted in accordance with College timetable. For more details contact Mrs. Radhika SM, HOD of Chemistry.

Radhika S M.

HoD

Radhika SM

Date: 08-04-2021

Kamala Y.C.

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DEPARTMENT OF CHEMISTRY

CERTIFICATE CORSE IN

BUSINESS SKILLS FOR A CHEMIST

TIMETABLE

Name of Staff member: Smt. Radhika SM and Smt. Sowmyashree

Designation: Assistant Professor

Duration:

DAY	TIME
SATURDAY	2 PM TO 4 PM

Radhika S M.
HoD

Kamala Y.C.
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JAYANAGAR, BANGALORE - 560 070

ACCREDITED 'A' GRADE BY NAAC

DEPARTMENT OF MATHEMATICS

CONDUCTS

VALUE ADDED CERTIFICATE COURSE ON

"MATHEMATICS IN DAILY LIFE"

2021-22

Prof. H.G. Amaraprabhu

CO-ORDINATOR

Dr. Y.C. Kamala

PRINCIPAL

THE NATIONAL COLLEGE

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DEPARTMENT OF MATHEMATICS

VALUE ADDED CERTIFICATE COURSE ON

MATHEMATICS FOR COMPETITIVE EXAMS-2022-23

CIRCULAR

This is to inform all the students that Department of Mathematics is starting the Value-Added Certificate Course on Mathematics For Competitive Exams from September 5th, 2022.

The objective of this course is to enable the students to learn basics of Mathematics, prepare well for competitive exams and to score well in Group exams confidently

All the students of science are hereby informed to utilize this opportunity by enrolling their names in the Department of Mathematics on or before 1st September 2021. Attendance is Mandatory.

Head of The Department of Mathematics
The National College
Jayanagar, Bangalore - 560 070.

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Kamala Y.C.

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

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JAYANAGAR, BANGALORE – 560 070

DEPARTMENT OF MATHEMATICS

VALUE ADDED CERTIFICATE COURSE ON MATHEMATICS FOR COMPETITIVE EXAMS -2022-23

Duration: 30 Hours

Objectives:

1. Enable the students understand the Basic concepts easily.
2. To improve Problem solving Techniques and develop self-confidence among the students
3. Ensure that the students score well in Competitive Exams.

Syllabus

Unit 1: Arithmetical Ability

Number system, Decimal Fractions, square Roots and Cube roots, Problems on Ages, surds. Indices, Logarithms.

Unit 2: Commercial Arithmetic

Simple Interest, Compound Interest, Percentage, Profit and loss, Ratio and Proportion, True Discount, Bankers Discount.

Unit 3: Stocks and Shares

Introduction, Meaning, Stocks and Shares, Calendar, Clocks.

Unit 4: Measures of Central Tendency

Arithmetic Mean, Median, Mode(both Grouped and ungrouped data),Direct method, short cut method.

Reference

1. Quantitative Aptitude by R S Aggarwal
2. Business Mathematics by G K Ranganath
3. Business Mathematics, Dorai Raj Sahitya Bhavan.
4. Fundamental of Mathematical Statistics S C Gupta and V K Kapoor.

Head of The Department of Mathematics
The National College
Jayanagar, Bangalore - 560 070.

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Department of Journalism

presents

A Value Added Course 2021-22

New Media Technology

ENROLL NOW

Dr. S. Jayasimha
Dept. of Journalism

Dr. Y. C. Kamala
Principal

THE NATIONAL COLLEGE

AUTONOMOUS

JAYANAGAR, BANGALORE – 560 070

DEPARTMENT OF JOURNAISM

VALUE ADDED COURSE

ON

"NEW MEDIA TECHNOLOGY"

For 4th Semester Journalism Students

2021- 2022

THE NATIONAL COLLEGE

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JAYANAGAR, BANGALORE – 560 070

Department of Journalism 2021-22

Value Added Course on

"New Media Technology"

Student Notice

This is informing to all the students of Journalism that the Department of Journalism is starting a Value Added Course on **"New Media Technology"** from 1st June to July 30th 2022. All the students of B.A. are hereby informed to make the best use of opportunity provided enrolling their names in the department on or before 25th of May 2022. Attendance is compulsory.

The objective of the course is to educate the students to take pictures in journalistic angle, to learn basic camera, types and technologies.

Duration is 35 hours.

HoD

Coordinator

Head, Dept. of Journalism
THE NATIONAL COLLEGE
7th Block, Jayanagar
Bangalore - 560 070.

Kamala Y.C.

Principal

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The National College
Jayanagar, Bangalore-70

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JAYANAGAR, BANGALORE – 560 070

Department of Journalism

"New Media Technologies"

TIME TABLE

Tuesday	3.00 to 4.00
Saturday	2.00 t0 4.00

HoD

Head, Dept. of Journalism
THE NATIONAL COLLEGE
Block, Jayanagar,
- 560 070.

Kamala Y.C.
Principal

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The National College
Jayanagar, Bangalore-70.

THE NATIONAL COLLEGE

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JAYANAGAR, BANGALORE – 560 070

Department of Journalism

VALUE ADDED COURSE ON

"New Media Technologies" (Syllabus)

Duration: 35 Hour

New Media Technologies

Objective:

The course intends to make media students appreciate these technologies. How these technologies are used in present scenario of Journalism.

Unit –I

Early Communication technologies and techniques, Development of image capturing devices and cinematography, Development of Radio and TV technology, Media technology and globalization process-its impact and cultural perspective.

Unit –II

Definition, Meaning, scope and importance of multimedia, Emergence and advantage of multimedia, DTH, Cable, Terrestrial transmission, Video on demand, interactive TV, WI-FI, Wireless cable, Fiber Optics.

Unit III

Convergence of media technology-nature and levels of convergence, Information superhighway and new communication possibilities, Satellite communication: beginning, growth, status and application, Concept of social media.

Unit IV

Internet TV and Internet Radio Future of mass media technologies Cyber Laws and cyber journalism. Future of media. Technological advancement and its impact on entertainment. Online journalism vs. traditional journalism –difference in news consumption

Reference Books

1. Information & Communication Technology- Kiran Prasad
2. IT in India- Om Gupta & Ajay Jasra
3. Multimedia Journalism- Dr. R.C Ramanjun
4. Understanding the Web- Alan Albarran & David Goff
5. Multimedia Communication- Jerry Gibson
6. Internet Journalism in India-Om Gupta & Ajay Jasra
7. Communication Media & Electronic Revolution- Aruna Zachariah
8. Mass Communication in India - Keval J. Kumar
9. Mass Communication & its Digital Transformation- Dr. R.C Ramanjun
10. Introduction to Mass communication - Staney Baran

HoD

Head, Dept. of Journalism
THE NATIONAL COLLEGE
7th Block, Jayanagar,
Bangalore - 560 070

Kamala Y.C.
Principal
PRINCIPAL
The National College
Jayanagar, Bangalore-70.

ನ್ಯಾಷನಲ್ ಎಜುಕೇಷನ್ ಸೊಸೈಟಿ ಆಫ್ ಕರ್ನಾಟಕ (ರಿ)

ನ್ಯಾಷನಲ್ ಕಾಲೇಜು, ಸ್ವಾಯತ್ತ

ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070

ಕನ್ನಡ ವಿಭಾಗ

ಆಯೋಜಿಸುತ್ತಿರುವ

ಮೌಲ್ಯಾಧಾರಿತ ಉಪ ಪಠ್ಯಕ್ರಮ (2022–23)

ಕನ್ನಡ ಸಾಹಿತ್ಯದಲ್ಲಿ ರಂಗಭೂಮಿಯ ಪರಿಕಲ್ಪನೆ

(Theater Concept in Kannada Literature)

Value Added Course (2022-23)

ಆಸಕ್ತ ವಿದ್ಯಾರ್ಥಿಗಳು ನೋಂದಾಯಿಸಿಕೊಳ್ಳಿ

ಎಲ್ಲರಿಗೂ ಆದರದ ಸ್ವಾಗತ

ಡಾ. ಬಿ. ಪಾಪಣ್ಣ
ಮುಖ್ಯಸ್ಥರು, ಕನ್ನಡ ವಿಭಾಗ

ಪ್ರೊ. ಹೆಚ್. ಸಿ. ಬೆಲ್ಲದ
ಕಾರ್ಯದರ್ಶಿಗಳು, ಕಾಲೇಜು ಅಧ್ಯಾಪಕ ಮಂಡಳಿ

ಡಾ. ವೈ.ಸಿ. ಕಮಲ
ಪ್ರಾಂಶುಪಾಲರು

An IQAC Initiative

Value Added Certificate Course in

"Theater Concept in Kannada literature"

STUDENTS NOTICE

This is informing to all the students that the Department of Kannada is starting the Certificate course in "Theater Concept in Kannada literature" from to 19th October to 10th December 2022.

The objective of this course is to enhance the skills in introduction drama in Kannada literature. writing concept about Drama.

All the Literature students are hereby informed to make the best use of the opportunity provided by enrolling their names in the Department on or before Attendance is compulsory.

Duration of the course is 35 hours.

Course Coordinator

ಕನ್ನಡ ವಿಭಾಗ
ನ್ಯಾಷನಲ್ ಕಾಲೇಜು ಸ್ವಾಯತ್ತ
ಜಯನಗರ, ಬೆಂಗಳೂರು-560 070

Date : 10.10.2022

Kamala Y.C.
PRINCIPAL
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The National College
Jayanagar, Bangalore-70

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JAYANAGAR, BANGALORE-70

An IQAC Initiative

Value Added Certificate Course in

"Theater Concept in Kannada literature"

STUDENTS NOTICE

This is informing to all the students that the Department of Kannada is starting the Certificate course in "Theater Concept in Kannada literature" from to 19th October to 10th December 2022.

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Course Coordinator

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ನ್ಯಾಷನಲ್ ಕಾಲೇಜು ಸ್ವಾಯತ್ತ
ಜಯನಗರ, ಬೆಂಗಳೂರು-560 070

Date : 10.10.2022

Kamala Y.C.
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An IQAC Initiative

Value Added Certificate Course in

"Theater Concept in Kannada literature"

TIME TABLE

Name of the Staff Members : Dr. B. Papanna, Dr. Savitha V, Dr. M. Rajanna.

Duration from 19TH October to 10th December 2023.

DAY	TIME
WEDNESDAY	3.30 TO 5.30
SATURDAY	1.30 TO 3.30

ಮುಖ್ಯಸ್ಥರು
ಕನ್ನಡ ವಿಭಾಗ
ನ್ಯಾಷನಲ್ ಕಾಲೇಜು ಸ್ವಾಯತ್ತ
ಜಯನಗರ, ಬೆಂಗಳೂರು-560 070

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The National College
Jayanagar, Bangalore-70

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The National College

Autonomous

Jayanagara, Bengaluru

Department of Computer Science

Organizes

Value Added Course

2021-22

amazon web services

Solution Architect

Resource person

Mr. Muthuram Govindarasu

Founder and CEO at Indigeneous Tech Pvt.Ltd.

ದಿ ನ್ಯಾಷನಲ್ ಕಾಲೇಜು
ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
ಸ್ಥಾಪನೆ: 1965 ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಅಡಿಯಲ್ಲಿನ ಸ್ವಾಯತ್ತ ಸಂಸ್ಥೆ

The National College
Jayanagar, Bangalore – 560070
ESTD. 1965 Autonomous Institute, Affiliated to Bangalore University

॥ ಶ್ರದ್ಧಾ ಹಿ ಪರಮಾ ಗತಿಃ ॥

Ref. No. NCJ/ Date:13/11/2021

Students Circular

This is to inform all students That the Department Of Computer Science is starting the Certification Course in "Amazon Web Services" from 18-11-2021 to 29-02-2022.

AWS Academy Data Engineering is designed to help students learn about and get hands-on practice with the tasks, tools, and strategies used to collect, store, prepare, analyze, and visualize data for use in analytics and machine learning applications.

All the BCA students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head Dept. of Comp. Science
The National Degree College
(Autonomous)
Jayanagar, Bangalore - 560 070

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph 26549684 JAYANAGAR, BANGALORE-70

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

AWS Solution Architect Training Syllabus

Muthuram Govindarasu

Indigeneous Tech Private Limited, #165, 8th Cross, CIL Layout , Cholanayakanahalli, RT Nagar (PO), Bangalore-560032

Course Duration:60hrs

Contents

AWS Training Syllabus 4

I. AWS Introduction 4

1) What is Cloud Computing? 4
2) What is AWS? 4
3) Why should we go for AWS? 4
4) History of AWS 4
5) Market Trends 4
6) AWS Certification Info 4

II. AWS Overview 4

1) The history and features of AWS 4
2) AWS Regions and Availability Zones 4
3) Major AWS services 4
   a) Compute 4
   b) Storage 4
   c) Database 4
   d) Networking 4
4) Accessing AWS services using AWS Management Console 4
5) Set up an AWS account and AWS CLI 4

III. Amazon Storage Services 5

1) Create Amazon S 3 buckets 5
2) Enable versioning in Amazon S 3 buckets 5
3) Demonstrate static web hosting using Amazon S 3 5
4) Share Amazon S 3 buckets between multiple accounts 5
5) Backup and sync data in Amazon S 3 5
6) Transfer files from Amazon S 3 to on premise storage 5
7) Use CloudFront, Snowball, Athena, and Macie services 5

IV. Amazon Virtual Private Cloud (VPC) 5

1) Explain Amazon Virtual Private Cloud (VPC) 5
2) Illustrate the VPC components 5
3) Create a public and private subnet 5
4) Create route tables and security groups 5
5) Set up a VPC peering connection 5

6) Demonstrate a VPN connection 5
7) Demonstrate load balancing 5
V. Amazon Elastic Compute Cloud (EC2) 5
1) Amazon EC2 and its uses 5
2) Amazon Machine Image (AMI) 5
3) The difference between EBS and EFS 5
4) The use of EBS snapshots 5
5) The different instance pricing options 5
6) Auto Scaling, FSx, and HPC 5
VI. Databases on AWS 6
1) Different databases that can be operated in AWS 6
2) RDS and its uses 6
3) Uses of Amazon DynamoDB, RedShift, Aurora and ElastiCache 6
VII. AWS Route53 DNS Services 6
1) Explain Domain Name System (DNS) 6
2) Describe Amazon Route 53 6
3) Discuss the concepts of Amazon Route 53 6
4) List the AWS recommended best practices for Amazon Route 53 6
VIII. IAM and Security on AWS 6
1) Define Identity and Access Management in AWS 6
2) Create custom IAM Roles 6
3) Create IAM users and assign roles 6
4) Create IAM groups with multiple IAM users 6
5) Assign roles to AWS Services 6
6) Use AWS Directory Service 6
7) Demonstrate MFA and SSO 6
IX. Application and Serverless services in AWS 6
1) Explain the application services offered by AWS 6
2) Enable event notification for AWS resources using SNS 6
3) Demonstrate how SQS is used to control workflow among AWS services 6
4) Explain the difference between SNS and SQS 6
5) Create a serverless webpage 6
X. Highly Available and Secured Architecture 7

1) Define AWS Well Architected Framework 7
2) User AWS CLoudFormation to provision AWS resources 7
3) Plan and design cloud infrastructure using the five pillars of AWS 7
4) Implement AWS security solutions 7
5) Utilize Amazon recommended best practices for AWS resources 7
XI. AWS Services based Projects 7
1) We will design and execute AWS Services (that will be learned during the training) based Projects 7
2) Each Participant will be provided with "AWS Training Completion" Certificate 7
3) After this training people can take up AWS online exam for "AWS Associate Level Solution Architect" certification with brushing up few additional topics 7

AWS Training Syllabus:

I. AWS Introduction

1) What is Cloud Computing?
2) What is an AWS?
3) Why should we go for AWS?
4) History of AWS
5) Market Trends
6) AWS Certification Info

II. AWS Overview

1) The history and features of AWS
2) AWS Regions and Availability Zones
3) Major AWS services:
    a) Compute
    b) Storage
    c) Database
    d) Networking
4) Accessing AWS services using AWS Management Console
5) Set up an AWS account and AWS CLI

III. Amazon Storage Services

1) Create Amazon S 3 buckets
2) Enable versioning in Amazon S 3 buckets
3) Demonstrate static web hosting using Amazon S 3
4) Share Amazon S 3 buckets between multiple accounts
5) Backup and sync data in Amazon S 3
6) Transfer files from Amazon S 3 to on premise storage
7) Use CloudFront, Snowball, Athena, and Macie services

IV. Amazon Virtual Private Cloud (VPC)

1) Explain Amazon Virtual Private Cloud (VPC)
2) Illustrate the VPC components
3) Create a public and private subnet
4) Create route tables and security groups
5) Set up a VPC peering connection
6) Demonstrate a VPN connection
7) Demonstrate load balancing

V. Amazon Elastic Compute Cloud (EC2)

1) Amazon EC2 and its uses
2) Amazon Machine Image (AMI)
3) The difference between EBS and EFS
4) The use of EBS snapshots
5) The different instance pricing options
6) Auto Scaling, FSx, and HPC

VI. Databases on AWS

1) Different databases that can be operated in AWS
2) RDS and its uses
3) Uses of Amazon DynamoDB, RedShift, Aurora and ElastiCache

VII. AWS Route53 DNS Services

1) Explain Domain Name System (DNS)
2) Describe Amazon Route 53
3) Discuss the concepts of Amazon Route 53
4) List the AWS recommended best practices for Amazon Route 53

VIII. IAM and Security on AWS

1) Define Identity and Access Management in AWS
2) Create custom IAM Roles
3) Create IAM users and assign roles
4) Create IAM groups with multiple IAM users
5) Assign roles to AWS Services
6) Use AWS Directory Service
7) Demonstrate MFA and SSO

IX. Application and Serverless services in AWS

1) Explain the application services offered by AWS
2) Enable event notification for AWS resources using SNS
3) Demonstrate how SQS is used to control workflow among AWS services
4) Explain the difference between SNS and SQS
5) Create a serverless webpage

X. Highly Available and Secured Architecture

1) Define AWS Well Architected Framework
2) User AWS CLoudFormation to provision AWS resources
3) Plan and design cloud infrastructure using the five pillars of AWS
4) Implement AWS security solutions
5) Utilize Amazon recommended best practices for AWS resources

The National Education Society of Karnataka (R.)

The National College

Autonomous

Jayanagara, Bengaluru

Department of Computer Science

Organizes

Value Added Course

2021-22

Block Chain and Hyperledger Fabric

Resource person

Mr. Muthuram Govindarasu

Founder and CEO at Indigeneous Tech Pvt.Ltd.

ದಿ ನ್ಯಾಷನಲ್ ಕಾಲೇಜು
ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
ಸ್ಥಾಪನೆ: 1965 ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಅಡಿಯಲ್ಲಿನ ಸ್ವಾಯತ್ತ ಸಂಸ್ಥೆ

The National College
Jayanagar, Bangalore – 560070
ESTD. 1965 Autonomous Institute, Affiliated to Bangalore University

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Ref. No. NCJ/ Date:30/04/2022

Students Circular

This is to inform all students That the Department Of Computer Science is starting the Certification Course in "Block Chain" from 05-05-2022 to 25-08-2022.

This course introduces students to blockchain technology, with detailed technical introduction to two widely used technology stacks i.e. Ethereum and Hyperledger. Course will also offer in-depth understanding of theoretical underpinnings, applications, best practices and research activities..

All the BCA students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head, Dept. of Comp. Science
The National Degree College
(Autonomous)
Jayanagar, Bangalore - 560 070

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph 26549684 JAYANAGAR, BANGALORE-70

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

Blockchain & Hyperledger Fabric
Training Syllabus

Muthuram Govindarasu

Indigeneous Tech Private Limited, #165, 8th Cross, CIL Layout , Cholanayakanahalli, RT Nagar (PO), Bangalore-560032

Course duration: 35hrs

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6) What is a Block? 3
7) What is Block Header? 3
8) What is a Bitcoin Wallet? 3
9) What is a Blockchain Node? 3
10) What is Cryptography? 3
11) What is a Hash Function? 3
12) What is a Merkle tree? 3
13) Distributed Network 3
14) P2P Network 3
15) Distributed Ledger Technology 3
16) What is Mining? 3
17) Consensus Mechanism 3
18) Proof of Work (POW) 3
19) How a Bitcoin Blockchain works? 4
20) Block Confirmations 4
21) Longest Chain rules 4
22) Bitcoin Blockchain Performance and constraints 4
23) Types of Blockchain 4

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4) Creation of an Amazon EC2 Instance with Ubuntu O/S 5
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6) Docker Basics 5
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8) Golang 5
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Blockchain Training Syllabus:

I. Blockchain Introduction

1) What is Blockchain?
2) Why it is called Blockchain?
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II. Bitcoin Blockchain

1) What is Bitcoin?
2) What is Blockchain Technology?
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18) Proof of Work (POW)

19) How a Bitcoin Blockchain works?
20) Block Confirmations
21) Longest Chain rules
22) Bitcoin Blockchain Performance and constraints
23) Types of Blockchain

III. Bitcoin Blockchain Hands on Practicals

1) Simulation of Test Bitcoin transactions across two blockchain Users

IV. Hyperledger Fabric based Blockchain

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2) All about Hyperledger Fabric Blockchain
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1) Hyperledger Fabric based Blockchain Hands on projects

The National Education Society of Karnataka (R.)

The National College

Autonomous

Jayanagara, Bengaluru

Department of Computer Science

Organizes

Value Added Course

2021-22

Data Mining

Resource person

Mr. Muthuram Govindarasu

Founder and CEO at Indigeneous Tech Pvt.Ltd.

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ESTD. 1965 Autonomous Institute, Affiliated to Bangalore University

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Ref. No. NCJ/ Date:26/05/2022

Students Circular

This is to inform to all the students That the Department Of Computer Science is starting the Certification Course in "Data Mining" from 02-06-2022 to 29-09-2022.

The Objective is to understand the basic theory underlying machine learning. To be able to formulate machine learning problems corresponding to different applications. To understand a range of machine learning algorithms.

All the BCA students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head Dept. of Comp. Science
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THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph 26549684 JAYANAGAR, BANGALORE

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

Data MiningSyllabus

Course Duration:50hrs

Muthuram Govindarasu

Indigeneous Tech Private Limited, #165, 8th Cross, CIL Layout , Cholanayakanahalli, RT Nagar (PO), Bangalore-560032

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Department of English

Value Added Course 2022-23

English Language Enrichment Programme (ELEP)

THE NATIONAL COLLEGE

AUTONOMOUS

36th B Cross, 7th Block, Jayanagar, Bangalore - 560 070

Phone : 080-26549684 Tele Fax : 080-26656644

Website : www.ncjayanagar.com E-mail: ncjblore@yahoo.com

NAAC ACCREDITED - 'A' GRADE

Ref No NCJ / /

Date 11-10-2022

Department of English

Value Added Course 2022-23

English Language Enrichment Programme (ELEP)

A Value-Added Course was conducted for the students of I semester B.A. on the topic, English Language Enrichment Programme (ELEP).

All the faculty members of the Department of English engaged the allotted classes, enlightened and provided the students in depth knowledge not only to enhance communication skills and pronunciation skills but also to develop their ability as critical readers and writers and use English language proficiently.

The students were also given participation/course completion certificates upon the completion of 60 hours duration of the course.

Dr. C. Vijayalakshmi
Head, Dept of English
The National Degree College
(Autonomous) 7th Block,
Jayanagar, Bangalore - 70

The National Education Society of Karnataka (R)

THE NATIONAL COLLEGE

AUTONOMOUS

Jayanagara, Bengaluru - 560 070

DEPARTMENT OF ENGLISH

VALUE ADDED COURSE - 2023-24

ELEP ENGLISH LANGUAGE ENRICHMENT PROGRAMME

Objectives:

- ✓ To enhance communication skills
- ✓ To develop their ability as critical readers and writers
- ✓ To improve their pronunciation skills
- ✓ To use English language proficiently

Module 1: Phonetics

- ⇨ Phonetic symbols
- ⇨ Accent and intonation

Module 2: Vocabulary Building

- ⇨ Idioms and Phrases
- ⇨ Synonyms and Antonyms
- ⇨ Commonly confused words

Module 3: Writing in Everyday Life

- ⇨ Business Letters
- ⇨ Emails
- ⇨ Notices
- ⇨ Film/Book Reviews

Module 4: Communication

- ⇨ Interview Preparation
- ⇨ Group Discussion
- ⇨ Resume Preparation

The National College

Autonomous
Jayanagra, Bengaluru
NAAC Accredited with Grade "A"

P. G. DEPARTMENT OF MATHEMATICS

conducts a MOOC course

INTRODUCTION TO DATA ANALYSIS USING EXCEL

By

RICE University, U.S.A.

Duration: July - September 2023

Interested students can register their names on or before June 26, 2023.

COURSE DURATION: 30 HOURS

Syllabus

Introduction to Spreadsheets
Spreadsheet functions to organize data
Introduction to filtering, pivot tables and charts
Advanced graphing and charting

DR. K. R. MADHURA
Head, P. G. Dept. of Mathematics

II Semester 2022 Batch

COURSE: Introduction to Data Analysis using Excel

UNIVERSITY: RICE UNIVERSITY, TEXAS, U.S.A.

	Name.	Course Completed on
1.	Sathwik Sharma M	26/08/2023
2.	Ayesha Taskeen	30/08/2023
3.	Anthony Vinitha	30/08/2023
4.	Gunashree M.	30/08/2023
5.	Sumithra B.M.	30/08/2023
6.	Jahnavi K.R.	30/08/2023
7.	Abhishek K.	01/09/2023
8.	Ambika E.S.	01/09/2023
9.	Shreyanka N.R.	01/09/2023
10.	Bhavyashree R.	01/09/2023
11.	Nithin G.T	05/09/2023
12.	Akshay Lenin	07/09/2023

Certificates are issued.

Head
PG Dept of Mathematics
The National College
Autonomous
Jayanagar, Bangalore-560 070

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Dept. of Economics

Conducts

Value Added Course

2022-23

ECONOMICS OF TOURISM

Dr. Nagachampa Jain

HOD, Department of Economics

Dr. Y. C. Kamala

Principal

THE NATIONAL COLLEGE
AUTONOMOUS
JAYANAGAR, BANGALORE-560070
The Department of Economics

Value Added Certificate Course on

"Economics of Tourism"

Students Notice

This is informing to all the students that the department of Economics is starting the Add-on course on "ECONOMICS OF TOURISM" from 15th October 2022. All the Economics students are hereby informed to make the best use of the opportunity by enrolling their names with the Head of the Department of Economics, on or before 10th October 2022. Attendance is compulsory.

Principal

Head
Department of Economics
The National College, Autonomous

THE NATIONAL DEGREE COLLEGE JAYANAGAR BANGALORE-70 AUTONOMOUS Ph: 26549684

Kamala Y.C.
PRINCIPAL
The National College
Jayanagar, Bangalore-70

The National College, Autonomous
Jayanagar, Bangalore

Department of Economics

Value Added Course on - Economics of Tourism - 2022-2023

Syllabus

Duration: 35 Hours

Unit 1. : INTRODUCTION

Meaning, Scope and importance of Economics of Tourism

Unit 2. : TOURISM DEMAND AND SUPPLY

Economics of Tourism demand and supply, Pricing in Tourism

Unit 3. : IMPACT OF TOURISM

Economic impact of tourism on employment, income and on balance of payments.

Unit 4. : TOURISM PLANNING AND POLICY

Tourism planning, Tourism policy of the government - tourist destinations in India - Role of infrastructure and safety measures - Prospects of tourism in Karnataka.

Reference:

Vanhove N. : The Economics of Tourism destination, Oxford

Sinha P.C : Tourism Marketing

Bhatia A K. : Tourism development, principles and practices

Bhatia A K. International Tourism

Head
Department of Economics
The National College, Autonomous
Jayanagar, Bangalore - 560 07

The National Degree College * Autonomous Bangalore-70. * 7th Block, Jayanagar

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PRINCIPAL
The National College
Jayanagar, Bangalore-70.

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The National College

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Jayanagar, Bangalore -70

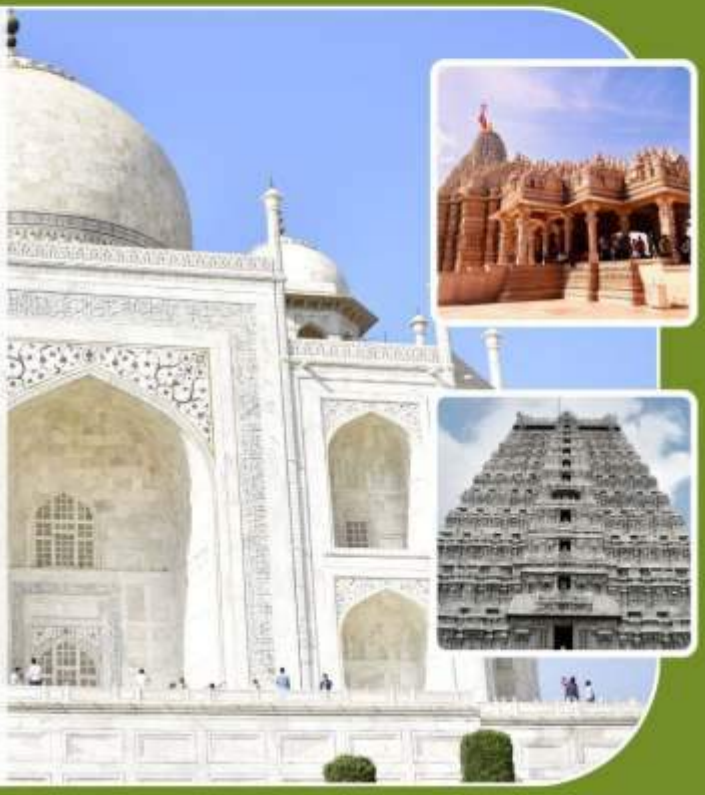
NAAC Accredited With Grade 'A'

Dept. of History

presents

A Value Added Course

INDIAN ARCHITECTURE



2022-23

Prof. Adithya B V
HOD, Depertment of History

Prof. H C Bellad
College Council Secretary

Dr. Y. C. Kamala
Principal

THE NATIONAL COLLEGE

AUTONOMOUS

JAYANAGAR , BANGALORE -560070

DEPARTMENT OF HISTORY

CIRCULAR

Department of History is conducting Value Added Course for IV Semester BA students on the topic **INDIAN ARCHITECTURE** from **March 2022** in the college class room. The course duration will 30 Hours . The course will be held every day from 3 pm to 4 pm .

Kamala Y.C.
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Jayanagar, Bangalore-70

H.O.D. of History
The National Degree College
AUTONOMOUS
Jayanagar, Bangalore - 70.

The National College
7th Block
Jayanagar
Bangalore-70
(Autonomous)

THE NATIONAL COLLEGE

AUTONOMOUS

JAYANAGAR, BANGALORE -560070

DEPARTMENT OF HISTORY

VALUE ADDED COURSE

INDIAN ARCHITECTURE

2022-23

1**Introduction to Indian art and architecture:** What is Indian art history; historiography; Indus Valley and Vedic archaeology. (5 Hours)

2.**Starting Mauryan Art: Ashokan** Columns/Pillars, The Didarganj Yakshas and Patna Yakshas Class Discussion led by Group 1 on Edicts of the Mauryan Emperor Ashoka. (5 Hours)

3.**Starting: Early Buddhist Art** 1: The Shungas: Bharhut Stupa Railings and the Great Stupa at Sanchi. (10 Hours)

4.**Early Buddhist Art** 2: Bodhgaya, Lomas Rishi, Bhaja, Karli and the Buddha Image. The Mathura School and the Gandhara School, Sarnath. (10 Hours)

BOOKS FOR REFERENCES :

1. Deborah Hutton's - Asian Art and architecture.
2. Ram Raz – The Architecture of the Hindus
3. Surendra Sahani – Forts and Palaces of India.

H.O.D. of History
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AUTONOMOUS
Jayanagar, Bangalore - 70.

॥ श्रद्धा हि परमा गतिः ॥

The National Education Society of Karnataka (R.)

The National College

AUTONOMOUS

Jayanagar, Bangalore -70

NAAC Accredited With Grade 'A'

Department of Journalism

presents

A Value Added Course

on

NEWS ANCHORING AND DIGITAL MEDIA WRITING

Dr. Vaishali H B
Dept. of Journalism

Prof. H C Bellad
College Council Secretary

Dr. Y. C. Kamala
Principal

THE NATIONAL COLLEGE

AUTONOMOUS

JAYANAGAR, BANGALORE – 560 070

DEPARTMENT OF JOURNAISM

VALUE ADDED COURSE

ON

"News Anchoring and Digital Media Writing"

For 4th Semester Journalism Students

From 1st April 2022

THE NATIONAL COLLEGE

AUTONOMOUS

JAYANAGAR, BANGALORE – 560 070

Department of Journalism 2022-23

Value Added Certificate Course on

News Anchoring and Digital Media Writing".

Student Notice

This is informing to all the students of Journalism that the Department of Journalism is starting the

Certificate Course on **"News Anchoring and Digital Media Writing"** from 1st April to 20th May 2022. News Anchoring and Digital Media Writing". All the students of B.A. are hereby informed to make the best use of opportunity provided enrolling their names in the department on or before 28th of March 2022. Attendance is compulsory.

The objective of the course is to educate the students regarding anchoring skills, digital media writing and career guidance.

Duration is 40 hours.

HoD

Coordinator

Head, Dept. of Journalism
THE NATIONAL COLLEGE
7th Block, Jayanagar,
Bangalore - 560 070.

Kamala Y.C.

Principal

PRINCIPAL
The National College
Jayanagar, Bangalore-70.

THE NATIONAL COLLEGE

AUTONOMOUS

JAYANAGAR, BANGALORE – 560 070

Department of Journalism

"News Anchoring and Digital Media Writing"

TIME TABLE

Monday	3.00 to 4.00
Saturday	2.00 t0 4.00

HoD

Head, Dept. of Journalism
THE NATIONAL COLLEGE
7th Block, Jayanagar
Bangalore - 560 070

Kamala Y.C.
Principal

PRINCIPAL
The National College
Jayanagar, Bangalore-70

THE NATIONAL COLLEGE

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JAYANAGAR, BANGALORE – 560 070

Department of Journalism

VALUE ADDED COURSE ON

"News Anchoring and Digital Media Writing"

Duration: 40 Hours

Course Pre-requisite(s): After completing this course, students will be able to:

- The students will able to gather information and present it to the viewers to keep them informedabout the daily happenings around the world.
- Handle the anchoring aids (Microphone/lapel, prompter) properly with the help of the acquiredknowledge on news, functions of news & news channel, tips & techniques of anchoring.
- Demonstrate to air-interviewing, conducting panel discussions, debates and other talk shows withbeing knowledgeable and well-read.
- Ability to give PTC, write and prepare news stories form their own research and be familiar with nitty-gritty of situations in order to deliver the news with confidence.

Contents	Hrs
Unit I: Duties and responsibilities while news reading, Understanding the news scripts and news, Teaching awareness of voice and its function, demonstrating how to control body language, Breathing and articulation, Talk Show Host and moderating an event. **Unit II** On-air Essentials, Studio autocue reading & Recording the voice, A look at personality, style and general show presentation, examples of anchors work and detailed analysis of their styles, Showing how to hold an audience's attention, agenda Making & adding effective promo and jingles while anchoring **Unit III** Introduction to the Digital Media: Concept and Definitions of Digital Media, Evolution and Development, Nature and Scope of Digital Media, Characteristics of Digital Media,Advantages and Disadvantages of Digital Media. Trends of Digital Media.	40hrs

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UNIT-IV: Digital Journalism: Mobile Journalism, Content Development, Interactive Narrative, Web Architecture, Web Journalism, Networked Journalism. OTT	

PRACTTICALS- 5 exercises each

- Voice Over: Rhythm of speech, Breathing, Resonance, VO for TV commercials/Corporate videos/radio commercials/ TV Documentaries, Public Speaking
- Writing a script for Audio-Visual Media Formats
- Content Writing for Twitter, Face book and Blog etc. – 5 assignments each
- Analyses of a Blog on the basis of its formatting and structure. – 5 assignments each

References:

Sl. No	Title of the book	Authors	Publisher	Edition	Year of Publication
1	Inside Reporting: A Practical Guide to theCraft of Journalism	Tim Harrower	**McGraw Hill Higher Education**	3rd	2012
2	Radio Jockey Handbook	Simran Kohli	Fusion Books	1st	2015
3	Multimedia in Practice - Technology& Applications	Judith Jeffcoate	Prentice Hall	1	1995

Some more reference books

1. Radio and Guide to Broadcasting techniques – Evans
2. Handbook of Broadcasting – Waldo Abbot and A Rider
3. Broadcasting and the People – Mehra Malrani
4. Writing for TV and Radio – Robert Hellard.
5. Television Production & Broadcast Journalism - Phillip L. Harris
6. Digital Media: Concepts and Applications - Tena B. Crews, Karen Bean May
7. Introduction to Digital Media - Alessandro Delfanti, Adam Arvidsson

HoD

Head, Dept. of Journalism
THE NATIONAL COLLEGE
7th Block, Jayanagar
Bangalore-560070

Kamala Y.C.

Principal

PRINCIPAL
The National College
Jayanagar, Bangalore-70.

The National College

Autonomous
Jayanagra, Bengaluru
NAAC Accredited with Grade "A"

P. G. DEPARTMENT OF MATHEMATICS

conducts an add-on course

ROADMAP FOR PATENT CREATION

Duration: August - September 2022

Interested students can register their names on or before August 5, 2022.

COURSE DURATION: 32 HOURS

Syllabus

Introduction to Roadmap for patent creation, Property and IP, IPR and future areas

Patent searching and analysis, Novelty and Industrial application

Parts of patent document, IP identification tool, patentability tool, patent timelines- India and PCT

Detailed description, parts of the specification and parts of application

When to publish, when to patent, procedure for patent filling

DR. K. R. MADHURA
Head, P. G. Dept. of Mathematics

THE NES OF KARNATAKA (R.)

THE NATIONAL COLLEGE

AUTONOMOUS

JAYANAGAR, BENGALURU -70

DEPARTMENT OF SOCIOLOGY

OFFERS

VALUE ADDED COURSE

ENROLL NOW

CULTURE, DIVERSITY AND SOCIETY

2022-2023

DR. SARASWATHI R
HOD, DEPT. OF SOCIOLOGY

DR. Y.C. KAMALA
PRINCIPAL

WWW.NCJAYANAGAR.COM

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AUTONOMOUS
JAYANAGAR, BENGALURU-70

THE NES OF KARNATAKA (R.)

THE NATIONAL COLLEGE

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JAYANAGAR, BENGALURU -70

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Head Dept of Sociology
The National College
(Autonomous) 7th Block,
Jayanagar, Bangalore-70

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DEPARTMENT OF SOCIOLOGY

VALUE ADDED CERTIFICATE COURSE ON CULTURE, DIVERSITY AND SOCIETY- 2022-23

TIME TABLE

Name of the Faculty: Arpitha P

Duration from 15th October 2022 to 31st January 2023

DAY	TIME
Saturday	2.30 PM to 4.30 PM

Dr.Saraswathi R
Head Dept of Sociology
The National College
(Autonomous) 7th Block
Jayanagar, Bangalore-70

Kamala Y.C.
PRINCIPAL
The National College
Jayanagar, Bangalore-70.

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DEPARTMENT OF SOCIOLOGY

VALUE ADDED CERTIFICATE COURSE ON CULTURE, DIVERSITY AND SOCIETY- 2022-23

CIRCULAR

This is to inform all the students that Department of Sociology is starting the Value-Added Certificate Course on Culture, Diversity and Society from 15th October 2022 to 31st January 2023.

The objective of this course is to educate the students to understand the cultural values, socio-cultural diversities and Indian Culture.

All the Sociology students are hereby informed to make use of the opportunity provided by enrolling their names in the department on or before 10th October 2022. Attendance is mantadoty.

Duration of the course is 30 Hours.

Dr.Saraswathi R
Head Dept of Sociology
The National College
(Autonomous) 7th Block,
Jayanagar, Bangalore-70

Date: 01-10-2022

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Value Added Course Approved Syllabus-2022-23

Title of the paper: **CULTURE, DIVERSITY & SOCIETY** 30 Hours.

Objectives of the Course:

1. To enable the students to understand the basic concepts of Indian Society.
2. To enlighten the students, know about our diversity.
3. To help students to understand the Indian culture.
4. To incorporate the cultural values.

Unit 1: **INTRODUCATION TO THE INDIAN SOCIETY**: 08 hours

Indian cultural tradition-Characteristics-Hinduism-The Ancient religion of India-Basic tenets and doctrines-Vedas-Upanishads-Purusharthas-Ashramas.

Unit 2: **DIVERSITY IN INDIA**: 08 hours

Meaning-Different types of diversity-Geographical diversity-Religious diversity-Cultural diversity-Racial diversity-Caste diversity-Ethnic diversity-Unity in diversity.

Unit 3: **CULTURE :** 07 hours

Meaning and definition-Features-Cultural Lag-Ethnocentrism-Cultural Relativity-Elements of culture.

Unit 4: **FAMILY, CASTE, VILLAGE AND WOMEN IN INDIA**: 07 hours

Family as a basic institution of Indian Society, Indian Caste System, definitions, features, Village community features and its problems, Violence against women, measures to improve the status of women.

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Reference Books:

1. Indian Society - S.C.Dube
2. Society in India - Ram Ahuja
3. Gisbert P. - Fundamentals of Sociology

Text Books:

1. G.Subramanya : Sociology of Indian society
2. C.N.Shankar Rao : Sociology of Indian Society
3. G.Subramanya : Culture, Diversity and Society

Course Outcome:

1.This paper has introduced to students for all stream which enable to understand the diversity of culture.

2.It helps the students to become broadminded.

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JAYANAGAR, BANGALORE - 560 070

Accredited 'A' Grade by NAAC

Conducting

Value Added Course on

Basics of Pshycological Counselling

Conducting by

DEPARTMENT OF PSYCHOLOGY

From 1st April, 2023

Course Co-ordinator

Prof. Anupama M. S.

Asst. Professor,
Dept. of Psychology, The NCJ

Prof. Geetha Srinivas

Head of the Department
Dept. of Psychology

Dr. B. Suresha

Principal

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AUTONOMOUS

JAYANAGAR, BANGALORE-560070

Accredited 'A' grade by NAAC

Department of Psychology 2022- 2023

An IQAC Initiative

Value Added Certificate Course In Basics of Psychological Counselling

Student Notice

This is to inform that all students that Department of Psychology is conducting a Value Added Certificate course on Basics of Psychological Counselling from 1st April 2023.

The main objective of this course in to educate Under Graduate Students with basic skills of Psychological Counselling. All the students are hereby informed to make best use of this opportunity by enrolling their names in the department on or before 31st March 2023. Attendance is compulsory. Duration of this course is 30 hours of Practical and 30 hours of Theory.

Course Co-Ordinator

Head
Department of Psychology
The National College
Jayanagar, Bangalore - 70.

Date 27th March 2023

Principal

IQAC Co-Ordinator

THE NATIONAL COLLEGE

AUTONOMOUS

JAYANAGAR, BANGALORE-560070

Accredited 'A' grade by NAAC

Value Added Certificate Course In Basics of Psychological Counselling

Time Table

Name of the Faculties: Prof Geetha Srinivas, Prof Anupama MS and Prof Jayanth.M

Designation: Assistant Professors of Psychology Department.

Duration of the Course : 1st April to 2nd May 2023

DAY	TIME
Saturday	2:00 PM to 5:00 PM
Monday	2:00 PM to 5:00 PM

Course Co-Ordinator

Head
Department of Psychology
The National College
Jayanagar, Bangalore - 70

Principal

IQAC Co-Ordinator

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Value Added Certificate Course In Basics of Psychological Counselling

Duration : 60 Hours

SYLLABUS

Unit 1	**Basics in Counselling** • Concepts, Need, Meaning, Scope, Factors and Common Terminologies. • Historical Perspectives of Counselling • Theoretical Perspective. • Ethical Issues.
Unit 2	**Process of Counselling** • Initiating stage of Counselling. • Establishing Structure. • Terminating Counselling.
Unit 3	**School Counselling** • Meaning and Nature of School Counselling. • Government initiatives. • Developing School Counselling Skills • Identifying common Class Room Issues. • Role of an Educator as a first point of contact. • Making Referrals to School Counsellors.
Unit 4	**Therapeutic Techniques** • Introduction to Therapies. • Relaxation Techniques • CBT and other Therapies.
Unit 5	**Practical Orientation of counselling Skills** **30 Hours**

Course Co-Ordinator

Principal

Head
Department of Psychology
The National College
Jayanagar, Bangalore - 70.

C. Vlakshmi

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ACCREDITED 'A' GRADE BY NAAC

DEPARTMENT OF MATHEMATICS CONDUCTS VALUE ADDED CERTIFICATE COURSE ON

"MATHEMATICS FOR COMPETITIVE EXAMS"

2022-23

Prof. H.G. Amaraprabhu
CO-ORDINATOR

Dr. Y.C. Kamala
PRINCIPAL

THE NATIONAL COLLEGE

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JAYANAGAR, BANGALORE – 560 070

DEPARTMENT OF MATHEMATICS

VALUE ADDED CERTIFICATE COURSE ON

MATHEMATICS FOR COMPETITIVE EXAMS-2022-23

CIRCULAR

This is to inform all the students that Department of Mathematics is starting the Value-Added Certificate Course on Mathematics For Competitive Exams from September 5th, 2022.

The objective of this course is to enable the students to learn basics of Mathematics, prepare well for competitive exams and to score well in Group exams confidently

All the students of science are hereby informed to utilize this opportunity by enrolling their names in the Department of Mathematics on or before 1st September 2021. Attendance is Mandatory.

Head of The Department of Mathematics
The National College
Jayanagar, Bangalore - 560 070.

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Kamala Y.C.

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

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JAYANAGAR, BANGALORE – 560 070

DEPARTMENT OF MATHEMATICS

VALUE ADDED CERTIFICATE COURSE ON MATHEMATICS FOR COMPETITIVE EXAMS -2022-23

Duration: 30 Hours

Objectives:

1. Enable the students understand the Basic concepts easily.
2. To improve Problem solving Techniques and develop self-confidence among the students
3. Ensure that the students score well in Competitive Exams.

Syllabus

Unit 1: Arithmetical Ability

Number system, Decimal Fractions, square Roots and Cube roots, Problems on Ages, surds. Indices, Logarithms.

Unit 2: Commercial Arithmetic

Simple Interest, Compound Interest, Percentage, Profit and loss, Ratio and Proportion, True Discount, Bankers Discount.

Unit 3: Stocks and Shares

Introduction, Meaning, Stocks and Shares, Calendar, Clocks.

Unit 4: Measures of Central Tendency

Arithmetic Mean, Median, Mode(both Grouped and ungrouped data),Direct method, short cut method.

Reference

1. Quantitative Aptitude by R S Aggarwal
2. Business Mathematics by G K Ranganath
3. Business Mathematics, Dorai Raj Sahitya Bhavan.
4. Fundamental of Mathematical Statistics S C Gupta and V K Kapoor.

Head of The Department of Mathematics
The National College
Jayanagar, Bangalore - 560 070.

Kamala Y.C.
PRINCIPAL
The National College
Jayanagar, Bangalore-70.

NANOTECHNOLOGY

PROSPECTUS

ADD ON CERTIFICATE COURSE

Nanotechnology

This Course Focus the students to gain knowledge on Nano science and nano technology

FROM: 03/10/2022
DURATION: (34 Teaching Hours)
This course is on free of cost certificate will be distributed at the end of the course.

Value added certificate course in

"Nanotechnology"

Student Notice

This is informing all the students of M.Sc. Physics, that the department of Post Graduate studies and Research in Physics is starting the certificate course in "Nanotechnology" from 3rd October 2022 to 30th of October 2022.

The objective of this course is to educate the students towards Nano science and nanotechnology.
All the students of M.Sc. Physics are hereby informed to make the best use of the opportunity provided by enrolling their names in the department on or before 3rd October 2022
Attendance is compulsory.

Duration of the course is 34 hours.

Department of PG Studies and Research in Physics

Co-ordinator

The Co-ordinator
Dept. of PG Studies in Physics
The National College
AUTONOMOUS
Jayanagar, Bangalore - 70.

Principal

Principal
The National College
Autonomous
Jayanagar 7th Block,
Bangalore - 560 070

Date: 15/09/2022

Value added certificate course in

"Nanotechnology"

Duration: 34 Hours

Syllabus

Unit-1	Introduction to Nanotechnology: The basics of nanofabrication and nano characterization techniques as well as specific applications of nanotechnology in commercial products. a cleanroom and vacuum environment for creating nanotechnology products.
Unit-2	Nano measurement and Characterization tools: Scanning Electron Microscopy, Energy Dispersive X-ray Spectroscopy, Transmission Electron Microscopy, X-ray and optical characterization,
Unit-3	Nanofabrication: Vacuum Pumps and thin films vacuum deposition, Vapour deposition techniques, basic processes of photolithography, e-beam lithography, ion beam lithography, hot embossing, and self-assembly, wet and dry etching

Department of PG Studies and Research in Physics

Co-ordinator

The Co-ordinator
Dept. of PG Studies in Physics
The National College
AUTONOMOUS
Jayanagar, Bangalore - 70.

Principal

Principal
The National College
Autonomous
Jayanagar 7th Block.
Bangalore - 560 070

Date: 15/09/2022

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Jayanagara, Bengaluru

Department of Computer Science

Organizes

Value Added Course

2022-23

amazon web services

Practitioner & Solution Architect

Resource person

Mr. Muthuram Govindarasu

Founder and CEO at Indigeneous Tech Pvt.Ltd.

ದಿ ನ್ಯಾಷನಲ್ ಕಾಲೇಜು
ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
ಸ್ಥಾಪನೆ: 1965 ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಅಡಿಯಲ್ಲಿನ ಸ್ವಾಯತ್ತ ಸಂಸ್ಥೆ

The National College
Jayanagar, Bangalore – 560070
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Ref. No. NCJ/ Date:21/11/2022

Students Circular

This is to inform all students That the Department Of Computer Science is starting the Certification Course in "Amazon Web Services Practitioner & Solution Architect " from 25-11-2022 to 24-01-2023.

AWS Academy Data Engineering is designed to help students learn about and get hands-on practice with the tasks, tools, and strategies used to collect, store, prepare, analyze, and visualize data for use in analytics and machine learning applications.

All the BCA students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

Prof. SHALINI. C
Head of the Department, Computer Science
The National College, Jayanagar, Bengaluru-70
Phone: 91-080-2244672

Head Dept. of Comp. Science
The National Degree College
(Autonomous)
Jayanagar, Bangalore - 560 070

THE NATIONAL DEGREE COLLEGE AUTONOMOUS Ph 26549684 JAYANAGAR, BANGALORE-70

PRINCIPAL
The National College
Jayanagar, Bangalore-70

AWS Practitioner & Solution Architect Training Syllabus

Muthuram Govindarasu

Indigeneous Tech Private Limited, #165, 8th Cross, CIL Layout , Cholanayakanahalli, RT Nagar (PO), Bangalore-560032

Course Duration:35hrs

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1) What is Cloud Computing? 4
2) What is AWS? 4
3) Why should we go for AWS? 4
4) History of AWS 4
5) Market Trends 4
6) AWS Certification Info 4

II. AWS Overview 4

1) The history and features of AWS 4
2) AWS Regions and Availability Zones 4
3) Major AWS services 4
   a) Compute 4
   b) Storage 4
   c) Database 4
   d) Networking 4
4) Accessing AWS services using AWS Management Console 4
5) Set up an AWS account and AWS CLI 4

III. Amazon Storage Services 5

1) Create Amazon S 3 buckets 5
2) Enable versioning in Amazon S 3 buckets 5
3) Demonstrate static web hosting using Amazon S 3 5
4) Share Amazon S 3 buckets between multiple accounts 5
5) Backup and sync data in Amazon S 3 5
6) Transfer files from Amazon S 3 to on premise storage 5
7) Use CloudFront, Snowball, Athena, and Macie services 5

IV. Amazon Virtual Private Cloud (VPC) 5

1) Explain Amazon Virtual Private Cloud (VPC) 5
2) Illustrate the VPC components 5
3) Create a public and private subnet 5
4) Create route tables and security groups 5
5) Set up a VPC peering connection 5

6) Demonstrate a VPN connection 5
7) Demonstrate load balancing 5
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1) Explain Domain Name System (DNS) 6
2) Describe Amazon Route 53 6
3) Discuss the concepts of Amazon Route 53 6
4) List the AWS recommended best practices for Amazon Route 53 6
VIII. IAM and Security on AWS 6
1) Define Identity and Access Management in AWS 6
2) Create custom IAM Roles 6
3) Create IAM users and assign roles 6
4) Create IAM groups with multiple IAM users 6
5) Assign roles to AWS Services 6
6) Use AWS Directory Service 6
7) Demonstrate MFA and SSO 6
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2) Enable event notification for AWS resources using SNS 6
3) Demonstrate how SQS is used to control workflow among AWS services 6
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5) Create a serverless webpage 6
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2) User AWS CLoudFormation to provision AWS resources 7
3) Plan and design cloud infrastructure using the five pillars of AWS 7
4) Implement AWS security solutions 7
5) Utilize Amazon recommended best practices for AWS resources 7
XI. AWS Services based Projects 7
1) We will design and execute AWS Services (that will be learned during the training) based Projects 7
2) Each Participant will be provided with "AWS Training Completion" Certificate 7
3) After this training people can take up AWS online exam for "AWS Associate Level Solution Architect" certification with brushing up few additional topics 7

AWS Training Syllabus:

I. AWS Introduction

1) What is Cloud Computing?
2) What is an AWS?
3) Why should we go for AWS?
4) History of AWS
5) Market Trends
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II. AWS Overview

1) The history and features of AWS
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    a) Compute
    b) Storage
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V. Amazon Elastic Compute Cloud (EC2)

1) Amazon EC2 and its uses
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VI. Databases on AWS

1) Different databases that can be operated in AWS
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VII. AWS Route53 DNS Services

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3) Discuss the concepts of Amazon Route 53
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VIII. IAM and Security on AWS

1) Define Identity and Access Management in AWS
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3) Create IAM users and assign roles
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6) Use AWS Directory Service
7) Demonstrate MFA and SSO

IX. Application and Serverless services in AWS

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X. Highly Available and Secured Architecture

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Jayanagara, Bengaluru

Department of Computer Science

Organizes

Value Added Course

2022-23

Block Chain and Ethereum and Hyperledger Fabric

Resource person

Muthuram Govindarasu

Founder and CEO at Indigeneous Tech Pvt.Ltd.

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ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
ಸ್ಥಾಪನೆ: 1965 ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಅಡಿಯಲ್ಲಿನ ಸ್ವಾಯತ್ತ ಸಂಸ್ಥೆ

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Ref. No. NCJ/ Date:19/04/2023

Students Circular

This is to inform all students That the Department Of Computer Science is starting the Certification Course in "Block Chain and Ethereum and Hyperledger Fabric" from 25-04-2023 to 19-08-2023.

This course introduces students to blockchain technology, with detailed technical introduction to two widely used technology stacks i.e. Ethereum and Hyperledger. Course will also offer in-depth understanding of theoretical underpinnings, applications, best practices and research activities.

All the BCA students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

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Jayanagar, Bangalore - 560 070

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PRINCIPAL
The National College
Jayanagar, Bangalore-70.

Blockchain & Ethereum & HyperLedger Fabric Training Syllabus

Muthuram Govindarasu

Indigeneous Tech Private Limited, #165, 8th Cross, CIL Layout , Cholanayakanahalli, RT Nagar (PO), Bangalore-560032

Course Duration: 35hrs

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Blockchain Training Syllabus:

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2) Why it is called Blockchain?
3) History of Blockchain

II. Bitcoin Blockchain

1) What is Bitcoin?
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17) Consensus Mechanism
18) Proof of Work (POW)

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III. Bitcoin Blockchain Hands on Practicals

1) Simulation of Test Bitcoin transactions across two blockchain Users

IV. Ethereum Blockchain

1) What is an Ethereum Blockchain
2) All about Ether
3) Transaction Fees and Gas
4) Ethereum Tokens
5) Smart Contracts
6) Ethereum Accounts
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8) Consensus Mechanism
9) Mining
10) Ethereum Wallets
11) NodeJS Basics and NPM
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VI. Hyperledger Fabric based Blockchain

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2) All about Hyperledger Fabric Blockchain
3) Creation of an AWS free account
4) Creation of an Amazon EC2 Instance with Ubuntu O/S
5) Hyperledger Fabric Based Blockchain Network and its components
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1) Hyperledger Fabric based Blockchain Hands on projects

The National Education Society of Karnataka (R.)

The National College

Autonomous

Jayanagara, Bengaluru

Department of Computer Science

Organizes

Value Added Course

2022-23

Machine Learning

With Python

ದಿ ನ್ಯಾಷನಲ್ ಕಾಲೇಜು
ಜಯನಗರ, ಬೆಂಗಳೂರು – 560070
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The National College
Jayanagar, Bangalore – 560070
ESTD. 1965 Autonomous Institute, Affiliated to Bangalore University

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Ref. No. NCJ/ Date:26/03/2022

Students Circular

This is to inform to all the students That the Department Of Computer Science is starting the Certification Course in "Machine Learning" from 1-04-2023 to 03-06-2023.

The Objective is to understand the basic theory underlying machine learning. To be able to formulate machine learning problems corresponding to different applications. To understand a range of machine learning algorithms.

All the BCA students are informed to make the best use of the opportunity provided by enrolling their names in the department. Attendance is Compulsory.

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Machine Learning Professional Training Syllabus

Course description & objectives: The main objective of this course is to enabling the student with basic knowledge on the techniques to build an intellectual machine for making decisions behalf of humans. This course covers the techniques on how to make learning by a model, how it can be evaluated, what are all different algorithms to construct a learning model.

Course Outcomes: ·

- Basics on what is a learning machine.
- · Basic mathematics behind learning algorithms.
- · Different types of leaning. ·
- Finally, How to construct a learning machine

Course Duration: 35hrs

Muthuram Govindarasu
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2) Moving Average (MA) 8

3) Autoregressive Moving Average (ARMA) 8
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5) Seasonal Autoregressive Integrated Moving-Average (SARIMA) 8
6) Seasonal Autoregressive Integrated Moving-Average with Exogenous Regressors (SARIMAX) 8

Module-1: Introduction to Machine Learning (ML)

Introduction about the below given topics:

a) **Data Science**
b) **Data Engineering**
c) **Machine Learning**
d) **Artificial Intelligence**
e) **Data Scientist**
f) **Data Engineer**
g) **Machine Learning Engineer**
h) **Machine Learning Professional**
i) **Data Analytics Vs Data Intelligence Vs Data Science**

Module-2: Python Basics

a) **Variables and Variable Scope**
b) **Built-in Datatypes**
c) **Lists**
d) **Tuples**
e) **Sets**
f) **Dictionaries**
g) **For Loops**
h) **While Loops**
i) **If-else Statements**
j) **Functions and Print Functions**
k) **Modules**
l) **Operators**
m) **File Handling**
n) **Lambda Functions**
o) **Classes and Objects**
p) **Iterators**
q) **Arrays**
r) **JSON format**
s) **User Input and Output Formatting**
t) **Math Functions**

Note: All the above given topics will be explained and all the topics will be covered with relevant Python programs.

Module-3: Python Libraries

a) **NumPy**
b) **Pandas**
c) **Matplotlib**
d) **Seaborn**
e) **SciPy**
f) **Scikit or Sklearn**

Note: All the above given topics will be explained and all the topics will be covered with relevant Python programs.

Module-4: Machine Learning (ML)

Module-4A: Supervised Learning

1) Regression

Algorithms:

a) **Linear Regression**
b) **Polynomial Regression**
c) **KNN (K-Nearest Neighbor) Regressor**
d) **Random Forest Regressor**
e) **Decision Tree Regressor**
f) **Support Vector Regressor**
g) **Ridge Regressor**
h) **Lasso Regressor**
i) **ElasticNet Regressor**

Note: All the above given algorithms will be explained and all the algorithms will be covered with relevant Python programs and datasets.

2) Classification

Algorithms:

a) **Logistic Regression**
b) **KNN (K-Nearest Neighbor) Classifier**
c) **SVC (Support Vector Classifier)**
d) **Naive Bayes Classifier**
e) **Decision Tree Classifier**
f) **Random Forest Classifier**

g) **Ada Boosting**
h) **Gradient Boosting**
i) **Extreme Gradient (XG) Boosting**
j) **Light GBM (Gradient Boosting Machine)**
k) **Cat Boosting**

Note: All the above given algorithms will be explained and all the algorithms will be covered with relevant Python programs and datasets.

Module-4B: Unsupervised Learning

1) Clustering

Algorithms:

a) **KMeans**
b) **Mean-Shift Clustering**
c) **Hierarchical Clustering**
d) **Density-based spatial clustering of applications with noise (DBSCAN)**
e) **Expectation-maximization based**

Note: All the above given algorithms will be explained and all the algorithms will be covered with relevant Python programs and datasets.

2) Association

Algorithms:

a) **Apriori**
b) **Equivalence Class Transformation (ECLAT)**
c) **Frequent Pattern (FP) Growth**

Note: All the above given algorithms will be explained and all the algorithms will be covered with relevant Python programs and datasets.

3) Dimensionality Reduction

a) **Principal Component Analysis (PCA)**
b) **Linear Discriminant Analysis (LDA)**

4) **Recommender Systems**

I. **Personalized**
   1) **Content Based**
   2) **Collaborating Filtering**
      a) **Model (ML Algorithms) Based**
      b) **Memory Based**
         i. **User Based**
         ii. **Item Based**
   3) **Hybrid Method**

II. **Non-Personalized**

Note: All the above given topics will be explained and all the topics will be covered with relevant Python programs and datasets.

Module-4C: Semi-Supervised Learning

1) **Label Encoding Method**
2) **Pseudo Labeling Method**

Note: All the above given methods will be explained and all the methods will be covered with relevant Python programs and datasets.

Module-4D: Reinforcement Learning

1) **Q-Table Method**

Note: The above given method will be explained and it will be covered with relevant Python programs and datasets.

Module-5: Deep Learning (DL)

1) **Artificial Neural Network (ANN)**
2) **Convolutional Neural Network (CNN)**
3) **Recurrent Neural Network (RNN)**
4) **Recurrent Neural Network (RNN) with Long Short-Term Memory (LSTM)**

Note: The above given Networks will be explained and they will be covered with relevant Python programs and datasets.

Module-6: Natural Language Processing (NLP)

1) **Introduction to NLP**
2) **Text Preprocessing**
3) **Text Summarization**
4) **Sentiment Analysis**
5) **Speech Recognition**

Note: The above given topics will be explained and applicable topics will be covered with relevant Python programs and datasets.

Module-7: Time Series Analysis

1) **Autoregression (AR)**
2) **Moving Average (MA)**
3) **Autoregressive Moving Average (ARMA)**
4) **Autoregressive Integrated Moving Average (ARIMA)**
5) **Seasonal Autoregressive Integrated Moving-Average (SARIMA)**
6) **Seasonal Autoregressive Integrated Moving-Average with Exogenous Regressors (SARIMAX)**

Note: The above given topics will be explained and all the topics will be covered with relevant Python programs and datasets.

Note: All the important topics given above will have projects which will meet the project requirements of the BCA degree. Every 3 students will have one project.