



NOTIFICATION

Sub: Open Elective Papers prescribed for IV Semester Under Graduate Courses of Bengaluru City University (BCU) as per NEP-2020 applicable from the Academic Year – 2022-23

Ref: 1. Proceedings of the Board of Studies of different UG Subjects
2. Proceedings of the Academic Council meeting held on 29.10.2022
3. Vice-Chancellor's approval dated: 20.04.2023.

In pursuance to the recommendations of the various Board of Studies and approval of the Academic Council the following Open Elective Papers are prescribed for the IV Semester Under Graduate Courses:

Sl. No	Course / Subject	Open Elective for IV Semester
FACULTY OF ARTS		
1.	Kannada	ಕನ್ನಡ ರಂಗಭೂಮಿ ಮತ್ತು ಪ್ರಯೋಗ
2.	English	Creative Writing in English Foray Into Films
3.	Hindi	Charitra Nirmaan Evam Vyaktitva Vikash
4.	Sanskrit	Swasthya Samrakshanam and Ayurveda Subhashitas
5.	Tamil & Malayalam	Introductory Tamil -4 Introductory Malayalam-4
6.	Telugu	Introductory Telugu-IV
7.	Urdu	Urdu Afsana
8.	Foreign Languages	French Basic French Spanish Basic Spanish
9.	Economics	1. Entrepreneurial Economics 2. Economics of GST
10.	History	Freedom Movement in India
11.	Mass Communication & Journalism	Translation for Media
12.	Social Work	Counseling and Guidance
13.	Visual Arts	1. Art Appreciation 2. Photography
14.	Political Science	1. Understanding Dr. B. R. Ambedkar 2. Political Journalism
15.	Sociology	1. Sociology of Leisure 2. Sociology of Food Culture
16.	Women Studies	1. Gender Health and Sexualities 2. Gender Analysis Tools and Techniques
17.	Criminology and Forensic Science	1. Child Protection Laws 2. Cybercrimes and Cyber Laws

18.	Performing Arts	Dance-(Bharathanatyam / Kathak / Kuchupudi) Prarambika Prayoga Kuchipudi Natya Kramam Kathak Natya Kramam B.A/ B.P.A -Theatre Arts (Drama) Folk Dances in Karnataka Music Karnataka Classical Music
19.	Education	Entrepreneurship in Education
20.	Physical Education	1. Sports Journalism 2. Self Defense
21.	B.Com	1. Banking Operations 2. Principles of Event Management
22.	B.Com (A& F)	
23.	B.Com (Business Data Analytics)	
24.	B.Com (Tourism & Travel)	
25.	B.Com (LSCM)	
26.	B.A Marketing	1. Digital Marketing 2. Advertising Skills
27.	BBA	1. Business Leadership Skills 2. Tourism Management
28.	B.Voc (Retail Management)	Creativity and Innovation
29.	B.Voc (Accounting & Taxation)	Investing in Stock Market
30.	BBA (Aviation)	1. Air fares & Ticketing 2. Airport Strategic Planning
31.	BHM	1. Fundamentals of Alcohols and Spirits 2. Consumer Behaviour in Tourism Sectors
32.	Bio-Chemistry	1. Biochemical Toxicology 2. Plant Biochemistry
33.	Botany	Floriculture
34.	Chemistry	Electrochemistry, Corrosion and Metallurgy
35.	Electronics	1. Application of Electronics-2 2. Mobile Communication
36.	Physics	1. Medical Physics 2. Electrical Instrument
37.	Apparel Technology	Fashion & Apparel Design Textile Art and Crafts of India Interior Design & Decoration Basics of Lighting
38.	Geography	1. Geography of Karnataka 2. Regional Planning and Development
39.	Mathematics	1. Partial Differential Equations 2. Mathematical Finance
40.	Microbiology	Human Microbiome
41.	Biotechnology	Intellectual Property Rights
42.	Statistics	1. Basics of Operations Research 2. Quantitative Analysis Techniques

43.	Zoology	1. Endocrinology 2. Animal Behaviour
44.	Genetics	Human Genetic Disorders
45.	Computer Science & Applications (B.Sc & BCA)	Database Management Systems
46.	(a) Home Science	Fashion Designing
	(b) Nutrition & Dietetics	Nutrition in Weight Management
	(c) Clinical Nutrition & Dietetics	Nutrition in Weight Management
47.	Psychology	Psychology at Work
48.	Sericulture	Textile Technology

With regard to offering of Open Electives for IV Semester students it is clarified that:

a) Science Students are required to study open electives from the Arts or Commerce & Management or other Streams not from the Science Streams.

b) Arts Students are required to study open electives from the Science or Commerce and Management or other Streams not from Arts Streams.

c) Commerce and Management students are required to study open elective from Science or Arts or other Streams not from Commerce and Management Streams.

As per 4 year Under Graduate Programme, students are required to study only 9 credit courses from other streams. Hence, there will not be 4th Open Elective paper in the second year.

The distribution of AECC and SEC and Open Elective -3 subjects for III & IV Semesters would be as follows.

Courses	III Semester	IV Semester
B.A / BSW/ BCA/ BVA / B.Sc./B.Sc. (FAD), B.Sc. (Rehabilitation) / B.Voc Information Technology, Retail Management & Accounting Taxation	Open Elective III	Constitution of India (AECC)*
B.Com/ BBA/BHM	Constitution of India (AECC)*	Open Elective III
B.A / BSW/BVA / B.Sc./B.Sc. (FAD), B.Sc. (Rehabilitation) BCA	Artificial Intelligence (SEC) Computer Assembly and Repair (SEC) Unix Programming (SEC)	Financial Education & Investment Awareness (SEC)
B.Voc (Information Technology)		
B.Com/ BBA/BHM/ B.Voc i) Retail Management ii) Accounting Taxation	Financial Education & Investment Awareness (SEC)	Artificial Intelligence (SEC)

***The Syllabus of AECC Constitution of India has been notified along with the Political Science Syllabus of III Semester. The Syllabus of Artificial Intelligence, Financial Education & Investment Awareness are enclosed for reference.**

The Principals of the Affiliated Colleges are required to make necessary arrangements for teaching of Open elective, AECC & SEC Subjects.

The contents of the above notifications may be brought to the notice of the Teachers and Students Concerned.


REGISTRAR

To,

All the Principals of the Constituent and Affiliated Colleges

Copy to:

1. The Additional Chief Secretary, Higher Education Dept., M.S Building, Bengaluru
2. The Executive Director, KSHEC, P.K Block, BCU
3. All the Deans of the Faculties, BCU
4. All the Chairpersons of UG Board of Studies, BCU
5. All the Chairpersons of PG Departments, BCU
6. The Registrar (Evaluation), BCU
7. The Finance Officers, BCU
8. PS to Vice-Chancellor/ Registrar/Registrar(Evaluation)
9. University Website publication

CONSTITUTION OF INDIA

Ability Enhancement Compulsory Courses(AECC) III Sem B.Com/BBA and IV Sem BA/B.SC/BCA/BHM/BSW and other Courses	
Course Title: CONSTITUTION OF INDIA	
Total Contact Hours:24	Course Credits:2
No. of Teaching Hours/Week:2	Duration of ESA/Exam:1Hours
Formative Assessment Marks:20	Summative Assessment Marks:30+20=50

Course Objective:

The purpose of the course is to familiarize the students with the key elements of Indian constitution. The course has been designed to cover the journey of the India from its emergence as a Republic. This will enable the students to understand various political Institutions that are operationalised under the Indian Constitution.

Learning Outcomes:

After completing this course students will be able to-

- Understand the philosophy of the Constitution and its structure.
- Measure the powers and functions of various offices under the Constitution.
- Appreciate the role of Constitution in a Democracy

Unit	Contents of Course:	24Hours
Unit-I	Chapter- 1 Making of Indian Constitution : Constituent Assembly-Composition, Objectives, Preamble and Salient features of the Indian Constitution.	8Hours
	Chapter-2 Fundamental Rights, Fundamental Duties, Directive Principles.	
Unit-II	Chapter-3 Union Government -President, Prime Minister and Council of Ministers	8Hours
	Chapter-4 State Government -Governor, Chief Minister and Council of Ministers	

Unit- III	Chapter- 5 Judiciary-Supreme Court and High Court: Composition, Powers and Functions and Judicial Review. Chapter-6 Electoral Process: Election Commission- Composition, Powers and Functions, Electoral Reforms.	8Hours
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Exercise:

- Department can debate on the role of Constitution in the country's development.
- Students can empirically evidence the effectiveness of concepts like-Freedom, Equality, Justice, Rights and Duties by conducting surveys.
- Can hold special lectures on various provisions of Constitution like working of Election Commission, Art 246, 356etc.

Kindly Note:

- The Ability enhancement compulsory courses (AECC) paper – “Constitution of India” (a) should be taught only by the Political Science/Law teachers. (b) This paper should be offered in IIIrd semester for B.Com/BBA courses. In the IVth Semester, this paper should be offered to BA/BSc/BFA/BCA/BHM/BSW and other all UG courses.

Suggested Readings:

1. DurgaDasBasu, Introduction to the Constitution of India, Gurgaon; LexisNexis, (23rd edn.) 2018.
2. M.V.Pylee, India's Constitution, New Delhi; S.Chand Pub., (16th edn.) 2017.
3. J.N.Pandey, The Constitutional Law of India, Allahabad; Central Law Agency, (55th edn.) 2018.
4. Constitution of India (Full Text), India.gov.in., National Portal of India, https://www.india.gov.in/sites/upload_files/npi/files/coi_part_full.pdf
5. KB Merunandan, Bharatada Samvidhana Ondu Parichaya, Bangalore, Meragu Publications, 2015.
6. ಪ್ರೊ.ಎಚ್.ಎಂ.ರಾಜಶೇಖರಭಾರತಸರ್ಕಾರ ಮತ್ತು ರಾಜಕೀಯ, ಕಿರಣ ಪ್ರಕಾಶನ, ಮೈಸೂರು 2020.
7. K. Sharma, Introduction to the Constitution of India, Prentice Hall of India, New Delhi, 2002.
8. P.MBakshi, Constitution of India, Universal Law Publishing House, New Delhi, 1999.
9. D.C.Gupta, Indian Government and Politics, Vikas publishing House, New Delhi, 1975.
10. S.N.Jha, Indian Political System, : Historical Developments, Ganga Kaveri Publishing House, Varanasi, 2005.
11. Arora & Mukherji, Federalism in India, Origin and Developments, Vikas Publishing House, New Delhi, 1992.

Pedagogy:

The course shall be taught through the Lecture, Tutorial, Interactive Sessions, Self-guided Learning Materials, Open Educational Resources (OER) as reference materials, Practical Exercises, Assignments, Seminars, Group Discussions Field Visit and Week-end Counseling Classes.

Formative Assessment	
Assessment Occasion/type	Weightage in Marks
AssessmentTest-1	5
Seminar/Group Discussion/Field Visit	5
AssessmentTest-2	5
Assignment	5
Total	20

Sd/-
Chairperson, BOS

Skill Enhancement Course: SEC for B.Sc. & other Subject Students

Semester: III/IV

Course Title: Artificial Intelligence	Course Credits: 2
Total Contact Hours: 13 hours of theory and 26 hours of practical	Duration of ESA: 01 Hour
Formative Assessment Marks: 20 marks	Summative Assessment Marks: 30 marks

Course Outcomes (COs):

At the end of the course, students will be able to:

- Appraise the theory of Artificial intelligence and list the significance of AI.
- Discuss the various components that are involved in solving an AI problem.
- Illustrate the working of AI Algorithms in the given contrast.
- Analyze the various knowledge representation schemes, Reasoning and Learning techniques of AI.
- Apply the AI concepts to build an expert system to solve the real-world problems.

Course Content (Artificial Intelligence)

	Details of topic	Duration
Course – 1 - Azure AI Fundamentals (AI-900)	AI-900 pathway consists of 5 courses and 2 reading material: <ul style="list-style-type: none"> i. Introduction to AI on Azure ii. Use visual tools to create machine learning models with Azure Machine Learning iii. Explore computer vision in Microsoft Azure iv. Explore natural language processing v. Explore conversational AI vi. Tune Model Hyperparameters - Azure Machine Learning (Reading) vii. Neural Network Regression: Module Reference - Azure Machine Learning (Reading) 	05 hours
Practical	<ol style="list-style-type: none"> 1. Prepare the data 2. Model the data 3. Visualize the data 4. Analyse the data 5. Deploy and maintain deliverables 	13 hours

Course – 2 - Data Analyst Associate (DA-100)	DA-100 pathway consists of 5 courses and 2 reading material: 1. Get started with Microsoft data analytics 2. Prepare data for analysis 3. Model data in Power BI 4. Visualize data in Power BI 5. Data analysis in Power BI 6. Manage workspaces and datasets in Power BI 7. Key Influencers Visualizations Tutorial - Power BI 8. Smart Narratives Tutorial - Power BI Microsoft Docs	08 hours
Practical	1. Describe Artificial Intelligence workloads and considerations 2. Describe fundamental principles of machine learning on Azure 3. Describe features of computer vision workloads on Azure 4. Describe features of Natural Language Processing (NLP) workloads on Azure	13 hours

References to learning resources:

1. The learning resources made available for the course titled "Azure AI Fundamentals (AI-900) and Data Analyst Associate (DA-100)." on Future Skills Prime Platform of NASSCOM.

Pedagogy

Flipped classroom pedagogy is recommended for the delivery of this course.

For every class:

1. All the faculty who takes this class should go for a Faculty Development Program on these before starting the session.
2. Faculty needs to introduce this course to the students then students need to start learning from Future Skills PRIME platform.
3. Faculty also needs to explain the course outcomes and needs of the course and why it is needed for the students.
4. Then students need to start learning online after registering on the platform.
5. Classroom activities are designed around the topic of the session towards developing better understanding, clearing doubts and discussions of high order thinking skills like application, analysis, evaluation, and design.
6. Every theory class ends with announcement of exercise for practical activity of the week.

Exercises:

Practical Exercises	Weightage in marks
After each chapter students' needs to complete exercises based on the learning in Azure environment.	No Weightage (But students need to complete it to move to next chapter) .

Assessment:

Formative Assessment	
Assessment Occasion	Weightage in Marks
1. Summative Assessment: After completion of both the courses, the student can optionally give Assessment for each of the courses on Future Skills Prime platform. Students will have two attempts and those who score at least 50% marks per course will get certificate from NASSCOM-MeitY.	This assessment may be given 50% weight in computing the final grade of the students.

Bengaluru City University

Course Title: Financial Education and Investment Awareness	Course Credits: 2
Total Contact Hours: 30 Hours of Theory and 15 Hours of Practical Sessions	Duration of ESA: 90 Minutes
Formative Assessment Marks: 20	Summative Assessment Marks: 30
Model Syllabus Authors: NSE Academy and Karnataka State Higher Education Council (through Model Curriculum Committee for Commerce and Management)	

Module 1: Foundations for Finance

10 hours

Introduction to Basic Concepts of Finance: Money and its need, Meaning and need for Financial Planning; Life goals and financial goals of an individual; Format of a sample financial plan for a young adult.

Time value of Money: Meaning, need, Concepts of Compounding – Simple and compound interest and Discounting- Present value of single cash inflow, series of cash inflow, annuity, perpetuity- *problems*.

Valuation Of Securities: Meaning, need for valuation of securities, Valuation of fixed income securities- debentures and preference shares, valuation of equity shares, dividend capitalization approach, earnings capitalization approach-*problems*.

Module 2: Investment Avenues

15 hours

Introduction to Investment: Meaning, Need, Essentials of investment, Investment and speculation, Basic investment objectives, Diversification- Need for diversification,

Investment Avenues for a Common Investor: Bank deposits; Corporate Securities-Equity shares, Preference shares, debentures, bonds, company deposits; Post Office savings schemes, Government securities, Real Estate, Gold and Bullion, Chit and Nidhi Companies, Life Insurance, Retirement and Pension Plans - National Pension System, Atal Pension Yojana etc. (Features if all Investment Avenues with Income Tax benefits); Risk and return relationship (*Theory only*).

Stock Markets: Primary Market and Secondary Market, StockExchanges, Stock Exchange Operations – Trading and Settlement, DEMAT Account, Depository and Depository Participants; Investor Protection.

Module 3: Mutual Funds

5 Hours

Mutual Funds: Meaning and Features of Mutual Funds, History of Mutual Funds in India, Benefits, and

drawbacks of investment in mutual fund; Major Fund Houses in India and Types of Mutual Fund Schemes and plans; SIP, STP, SWP of mutual fund; Net Asset Value- *simple problems*.

Practical Lab Hours: 15 hours

Module 1: Foundations for Finance

Lab exercises 5 Hours

- **Spreadsheet Modelling:**
 - IF Function
 - SUM Function
 - AVERAGE Function
 - INDEX, MATCH and VLOOKUP Function
 - RANK Function
 - SUM PRODUCT Function
 - MAX & MIN Function
 - PRESENT VALUE Functions
 - FUTURE VALUE Functions
 - ANNUITY Functions
 - PERPETUITY Functions
 - Statistical Functions in Excel- through data analysis
- **Preparation of Financial Plan**

Module 2: Investment Avenues

Lab exercises 5 Hours

- Group Presentations on Investment Avenues- (Advantages, Suitability and Limitations)
- Demonstration of Stock Trading
- Demonstration of Technical Analysis and Exercises (NSE –TAME)
- Spreadsheet Modelling for calculating Stock Returns and risk.

Module 3: Mutual Funds

Lab exercises 5 Hours

- Identification of Fund Houses in India, Schemes and Plans of each Mutual Fund House (www.amfiindia.in , www.valueresearchonline.com)
- Exercises on Calculation of Net Asset Value
- Demonstration of Mutual Fund Fact Sheet

Question Paper Pattern

1. Internal Assessment – 20 marks (practical lab-based assignments with Lab records)
2. End Semester Exam – 30 marks

Originally given by HEC and NSE

Section A: 4 out of 5 questions (2 marks each) 4 X 2 = 8 Marks

Section B: 2 out of 3 questions (6 marks each) 2 X 6 = 12 Marks

Section C: (Compulsory): Analysis of One Case (or) Two Case-lets 1 X 10 = 10 Marks

Modified pattern by BCU- BOS

Section A: 4 out of 5 questions (2 marks each) 4 X 2 = 8 Marks

Section B: 2 out of 3 questions (6 marks each) 2 X 6 = 12 Marks

Section C: (Compulsory): Descriptive question or problem 1 X 10 = 10 Marks

References:

1. RBI Financial Education Handbook
2. NSE Knowledge Hub, AI-powered Learning Experience Platform for BFSI
3. NSE Academy Certification in Financial Markets (NCFM) Modules:
 - a. Macroeconomics for Financial Markets
 - b. Financial Markets (Beginners Module)
 - c. Mutual Funds (Beginners Module)
 - d. Technical Analysis

Reference Books:

S. No	Author/s	Title of the Book	Publisher
1	Prasanna Chandra	Financial Management	McGraw Hill Education
2	Aswath Damodaran	Corporate Finance	John Wiley & Sons Inc
3	Pitabas Mohanty	Spreadsheet Skills for Finance Professionals	Taxmann Publications
4	Fischer & Jordan	Security Analysis & Portfolio Management	Prentice Hall

Websites:

1. www.sebi.gov.in
2. www.nseindia.com
3. www.amfiindia.com