

**CRITERION 2**  
**TEACHING – LEARNING AND EVALUATION**



**2.6**

**Student Performance and Learning Outcomes**

**2.6.1 – Programme Outcomes and Course Outcomes**

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**UNIVERSITY OF CALICUT**

**Abstract**

General and Academic Branch - Faculty of Commerce and Management Studies - Scheme and Syllabus of Bachelor of Commerce (B.Com) Programme under CBCSS UG Regulations 2019 w.e.f 2020 Admission on wards - Incorporating Outcome Based Education - Implemented - Subject to ratification by Academic Council -Orders Issued.

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**G & A - IV - E**

U.O.No. 5661/2021/Admn

Dated, Calicut University.P.O, 28.05.2021

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- Read:-*1. U.O. No.16934/2019/Admn dated 03.12.2019, UO 8445/2019 dated 29.6.2019 and UO 17578/2019 dated 17.12.2019.  
2. Item No.1 of the minutes of the meeting of the Board of Studies in Commerce (UG) held on 25.02.2021.  
3. Email dated 25.05.2021 from the Dean, Faculty of Commerce and Management Studies.  
4.Order Vice Chancellor in the file of even No. dated 26.05.2021.

ORDER

1. The scheme and syllabus of Bachelor Programme under CBCSS UG Regulations 2019 has been implemented w.e.f 2019 admission onwards, vide paper read (1) above.
2. The meeting of the Board of Studie in Commerce (UG), held on 25.02.2021, vide paper read (2) above, approved the Out Come Based Education (OBE) syllabus of Bachelor Programme under CBCSS UG Regulations 2019, without changing the content w.e.f 2020 admission onwards.
3. The Dean, Faculty of Commerce and Management Studies, vide paper read (3) above, has approved the above resolution of the Board of Studie in Commerce (UG), held on 25.02.2021.
4. Considering the urgency in implementation of the syllabus, sanction has been accorded by the Vice Chancellor on 26.05.2021 to implement Outcome Based Education in the existing syllabus of Bachelor of Commerce Programme (CBCSS UG 2019) without changing the content, with effect from 2020 Admission onwards, subject to ratification by the Academic Council, vide paper read as (4) above.
5. The scheme and Syllabus effecting Outcome Based Education in the existing syllabus of Bachelor of Commerce Programme (CBCSS UG 2019) without changing the content, with effect from 2020 Admission onwards, is therefore implemented, subject to ratification by the Academic Council.

Orders are issued accordingly. (syllabus appended)

Ajitha P.P

Joint Registrar

To

1. The Controller of Examinations, PB.
2. The Principals of Affiliated Colleges.

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**Module V:** Emerging concepts in management – Kaizen – TQM – TPM – MIS – ISO – Change management – Stress management – Fish bone (ISHIKAWA) Diagram – Holacracy - Rank & Yank - 20% time - Gamification - Flexi-working - Business eco system – Logistic management. (13 Hours, 10 marks)

**Specific Outcomes:**

1. Understand the concept of Management.
2. Understand the importance of Management in a global perspective.
3. Understand the differences between management and leadership in real life situations.
4. Analyze the concept of corporate social responsibility towards various stake holders.
5. Understand about the most modern techniques of management practiced in developed countries.

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**BCM1C01: MANAGERIAL ECONOMICS**

**Course Objective:** To provide knowledge about the basic principles of Micro and Macro economics for developing an understanding of various theories in economics and its integration to markets and business environment and to use them in managerial decision making.

**Specific Objectives:**

1. To understand the concept of macro and micro economics and its role in managerial decision making.
2. To understand the concept of marginal utility theory and its role in managerial decision making.
3. To understand the structure of different markets and its influence on business decision and to integrate this knowledge with business applications.
4. To realise the concept of Indian economy in Business and the role played by government in regulating Indian economy.
5. To gain a conceptual knowledge regarding India’s foreign trade and the application of this knowledge in benefitting the opportunities available to a businesses.

**Syllabus**

**Module I:** Managerial Economics:- – Definition and characteristics – Nature and Scope - Economics Vs Managerial Economics - Decision making and forward planning – Relationship of managerial economics with other disciplines - Basic economic tools in management economics – The role of managerial economist. (10 Hours, 10 marks)

**Module II:** Theory of consumer behaviour: - Cardinal analysis - Law of diminishing marginal utility – consumer surplus; Ordinal approach – indifference curve analysis – consumer equilibrium – income consumption curve and price consumption curve – Hicksian decomposition of price effect in to substitution effect and income effect – Demand curve for normal, inferior and giften goods – concept of elasticity of demand – measurement of various elasticities – Elasticity of supply. (20 Hours, 20 marks)

**Module III:** Market structure:- a. Perfect competition: – profit maximization and equilibrium of firm and industry – short run and long term supply curves – price and output determination. b. Monopoly: – Price determination under monopoly – equilibrium of firm – comparison between perfect competition and monopoly – price discrimination. c. Monopolistic competition: price and output determination – product differentiation – comparison with perfect competition – excess capacity under monopolistic competition. d. Oligopoly: indeterminate pricing and output – classical models of oligopoly – price leadership - collusive oligopoly – kinked demand curve. (20 Hours, 20 marks)



UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Science - Syllabus of BSc Chemistry Programme under CBCSS UG Regulations 2019 with effect from 2019 Admission onwards - Implemented - Orders Issued

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**G & A - IV - J**

U.O.No. 9082/2019/Admn

Dated, Calicut University.P.O, 09.07.2019

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*Read:-*1. U.O.No. 4368/2019/Admn dated 23.03.2019

2. Item No. 1 of the minutes of the combined meeting of the Boards of Studies in Chemistry UG, Polymer Chemistry and Industrial Chemistry held on 27.05.2019

3. Item No. 1.16 of the minutes of the meeting of Faculty of Science held on 27.06.2019

ORDER

The Regulations for Choice Based Credit and Semester System for Under Graduate (UG) Curriculum 2019 (CBCSS UG Regulations 2019) for all UG Programmes under CBCSS-Regular and SDE/Private Registration w.e.f. 2019 admission has been implemented vide paper read first above.

The combined meeting of the Boards of Studies in Chemistry UG, Polymer Chemistry and Industrial Chemistry on 27.05.2019 has approved the Syllabus of BSc Chemistry Programme in tune with the new CBCSS UG Regulations with effect from 2019 Admission onwards, vide paper read second above.

The Faculty of Science at its meeting held on 27.06.2019 has approved the minutes of the combined meeting of the Boards of Studies in Chemistry UG, Polymer Chemistry and Industrial Chemistry on 27.05.2019 vide paper read third above.

Under these circumstances, considering the urgency, the Vice Chancellor has accorded sanction to implement the Scheme and Syllabus of BSc Chemistry Programme in accordance with the new CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards, subject to ratification by the Academic Council.

The Scheme and Syllabus of BSc Chemistry Programme in accordance with CBCSS UG Regulations 2019, is therefore implemented in the University with effect from 2019 Admission onwards.

Orders are issued accordingly. (Syllabus appended)

Biju George K

Assistant Registrar

To

The Principals of all Affiliated Colleges

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**SEMESTER I****Course Code: CHE1B01****Core Course I: Theoretical and Inorganic Chemistry- I**

Total Hours: 32; Credits: 2; Hours/Week: 2; Total Marks 75 (Internal 15 &amp; External 60)

CHE1B01	Theoretical and Inorganic Chemistry-I	L*	T**	P***	C#
		2	0	0	2
Objective (s)	To gain detailed knowledge of the principle of volumetric analysis and properties of <i>s</i> and <i>p</i> block elements. To provide the basic groundwork for a research project. Students will be able to analyse basic theory of acid base concept.				
Course outcome (s)					
CO1	To apply the methods of a research project.				
CO2	To understand the principles behind volumetry.				
CO3	To analyse the characteristics of different elements.				
CO4	To distinguish between different acid base concepts.				
CO5	To analyse the stability of different nuclei.				

\*Lecture, \*\*Tutorial, \*\*\*Practical, #Credit

**Module I: Chemistry as a discipline of science (5 hrs)**

[Prerequisites: Evolution of chemistry – early form of chemistry: the *panch tatvas* and alchemy, idea of some technologies that eventually formed the basis of the various branches of chemistry, ancient speculations to particulate nature of matter, laws of chemical combination. Scope of chemistry, branches of chemistry, interdisciplinary areas involving Chemistry.]

What is science? Scientific statements - scientific methods - observation - posing a question - formulation of hypothesis - experiment - theory - law - revision of scientific theories and laws. Scientific research: selecting a topic for research, design of an experiment, sampling, use of controls, experimental bias, analysis, results and discussion of results, statistical analysis of experimental data, preparation of seminar papers, major publishers in chemical science, author citation, reviews and keywords.

Publishing a research work: Introduction, review of literature, scope, materials and methods, results and discussion, conclusions and bibliography.

**References**

1. J. A. Lee, *The Scientific Endeavor: A Primer on Scientific Principles and Practice*, Pearson Education, 1999.



UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Humanities- Scheme and Syllabus of BA Economics Programme -Incorporating Outcome Based Education- Implemented w.e.f 2020 Admission onwards- Subject to ratification by Academic Council - Orders Issued

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**G & A - IV - B**

U.O.No. 5697/2021/Admn

Dated, Calicut University.P.O, 28.05.2021

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- Read:-*1. U.O.No. 16821/2019/Admn dated 30.11.2019  
2. Minutes of the meeting of the BoS in Economics UG held on 20.05.2021(Item No.1)  
3. Remarks of the Dean Faculty of Humanities, dated 26.05.2021.  
4. Orders of the Vice Chancellor dated 26-05-2021

ORDER

1. The scheme and syllabus of BA Economics Programme under CBCSS UG Regulations 2019, w.e.f 2019 admission onwards has been implemented in the University, vide paper read (1) above.
2. The meeting of the Board of Studies in Economics UG, held on 20.05.2021, vide paper read (2) above, has approved the Outcome Based Education (OBE) syllabus of BA Economics Programme, under CBCSS UG Regulations 2019 without changing the content, w.e.f 2020 admission onwards.
3. The Dean Faculty of Humanities, vide paper read (3) above, has approved the above resolution of the Board of Studies in Economics UG held on 20.05.2021.
4. Considering the urgency in implementation of the syllabus, sanction has been accorded by the Vice Chancellor on 26-05-2021 to implement Outcome Based Education in the existing syllabus of BA Economics Programme (CBCSS UG 2019) without changing the content, with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. The scheme and syllabus of BA Economics Programme under CBCSS UG Regulations 2019 incorporating Outcome Based Education (OBE) in the existing syllabus without changing the content is therefore implemented with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
6. Orders are issued accordingly. (Syllabus appended)

Ajitha P.P

Joint Registrar

To

The Principals of all Affiliated Colleges

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**Semester I**

<b>Course Category</b>	<b>Core Course 1</b>
<b>Course Title and Code</b>	<b>Microeconomics – I ECO1 B01</b>
<b>No. of Credits</b>	<b>5</b>
<b>No. of Contact Hours</b>	<b>6 Hours per week</b>

**MICROECONOMICS – I**

At the end of this course students are expected to have the following course outcome,

<b>No.</b>	<b>Course Outcomes</b>	<b>Cognitive Level</b>
CO 1	Students explain what economics is and explain why the subject is important	Explaining
CO 2	Students explain how economists use economic models	Explaining
CO 3	Students understand the scarcity and choice in the economy and the basic problems of an economy.	Understanding
CO 4	Students explain and illustrate market equilibrium and disequilibrium.	Explaining & illustrating
CO 5	Students analyse how consumers maximize the total utility within a given income using the utility maximizing rule.	Analysing
CO 6	Students describe how consumer’s utility changes when income or price change.	Describing
CO 7	Students define the term production and explain what a production function is; define and differentiate between marginal, average and total product; compute and graph marginal, average and total product.	Defining & Explaining
CO 8	Students define and differentiate between different cost concepts and interpret the relation between long run and short run costs.	Defining & differentiating

**Module I: Exploring the Subject Matter of Economics**

Why study economics? Micro Versus Macro- Concepts of wealth, welfare, scarcity and growth  
 -The scope and method of economics- Induction and deduction-Positive and normative economics-Value judgments- scarcity and choice- the basic problems of an economy- Production Possibility curve- basic competitive model- economic systems.

**Module II: Demand and Supply Analysis**

Concept of Demand- Law of Demand- Determinants of demand – Types of Demand – Demand Function – Market Demand Curve - Elasticity of Demand – Price, Income and Cross elasticity of





UNIVERSITY OF CALICUT

**Abstract**

General and Academic- Faculty of Humanities-Correction in the Scheme & Syllabus of MA Economics Programme under CBCSS PG Regulations 2019 by reinstating the course "Research Methodology and Computer Applications" in the list 2 of electives only for affiliated colleges and also to list the same course as a core course only for SDE/Private Registration as a substitute for dissertation with effect from 2019 Admission onwards -implemented- Orders Issued

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**G & A - IV - B**

U.O.No. 10593/2020/Admn

Dated, Calicut University.P.O, 12.11.2020

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- Read:-*1. UO No. 4487/2019/Admn Dated 26.03.2019  
2. UO No. 8660/2019/Admn Dated : 02.07.2019  
3. UO. No. 15855/2019/Admn Dated: 08.11.2019  
4. UO No.6474/2020/Admn dated 09.07.2020  
5. UO No .10495/2020/Admn dated 10.11.2020  
6. Email dated 23-10-2020 from the Chairman, Board of Studies in Economics PG  
7. Remarks of Dean, Faculty of Humanities dated 04.11.2020.

**ORDER**

1. The Regulations for Choice Based Credit and Semester System for Post Graduate (PG) Curriculum 2019 (CBCSS PG Regulations 2019), for all PG Programmes under Affiliated Colleges and SDE/Private Registration with effect from 2019 Admission has been implemented in the University of Calicut vide paper read (1) above. Accordingly, orders were issued implementing the Syllabus of MA Economics Programme in accordance with new CBCSS PG Regulation 2019, vide paper read (2) above.
2. Later, as per paper read (3) above, the Syllabus of MA Economics Programme (CBCSS) was implemented correcting minor mistakes found in the code, teaching hours, scheme of evaluation and format of model question paper etc.
3. The corrected Scheme & Syllabus of MA Economics (CBCSS) Programme in accordance with amended CBCSS PG Regulations 2019, for affiliated Colleges and SDE/Private Registration is implemented in the University with effect from 2019 Admission onwards, removing the elective course titled 'Research Methodology and Computer Applications' from the list 2 of the elective courses in the semester 4 and offering it as a course in lieu of dissertation for SDE/Private registration candidates, vide paper read (4) above, and made absolute, vide paper read (5) above.
4. The Chairman Board of Studies in Economics PG, vide paper read (6) above has informed that the removal of the Course, "Research Methodology and Computer Applications" from the list 2 of elective courses in semester 4 was meant to be applicable only to SDE candidates. But by mistake, it was removed from the list 2 of elective courses in semester 4 for both SDE and affiliated colleges. Hence the Chairman has requested to reinstate the course "Research Methodology and Computer Applications" in the list 2 of elective courses in semester IV CBCSS, only for affiliated colleges with the code ECO4 E10 and also to list the same course as a core course only for SDE/Private Registration as a substitute for dissertation with the code ECO4 C14.

**Core Course-I  
MA ECONOMICS (CBCSS)  
I SEMESTER**

**ECO1 C01 - MICROECONOMICS: THEORY AND APPLICATIONS-I  
(Credit 5)**

**Module I Consumer Behaviour under Uncertainty and Risk**

Choice under uncertainty- Representing uncertainty by Probability distributions- Expected Value and Variability- Maximising expected utility- Fair gambles and expected utility hypothesis- St. Petersburg paradox-Neumann-Morgenstern utility index- Friedman Savage hypothesis-Markowitz hypothesis- Utility functions and attitudes towards risk- risk neutrality, risk aversion, risk preference, certainty equivalent, demand for risky assets- reducing risks- diversification, insurance, flexibility, information- The state preference approach to choice under uncertainty.

**Module II Market Demand for Commodities**

Deriving market demand- Network externalities- Bandwagon effect, Snob effect and Veblen effect- Empirical estimation of demand- Linear demand curve, Constant elasticity demand function- Dynamic versions of demand functions-Nerlove, Houthakker and Taylor-Linear expenditure system- Characteristic approach to demand function.

**Module III Theory of Production and Costs**

Short run and long run production function- returns to scale- elasticity of substitution- Homogeneous production function- Linear homogeneous production function- Fixed proportion production function- Cobb Douglas production function and CES production function- Technological progress and production function- Cost function- Cost minimising input choices- properties of cost functions- Economies of scope- The Learning curve – Estimating and Predicting cost- Short run and long run distinction.

**Module IV Theory of Imperfect Markets**

Oligopoly- Characteristics- Collusive versus non-collusive oligopoly- Non-collusive models- Cournot model- Bertrand model- Chamberlin's model-Kinked demand curve model of Sweezy- Stackelberg's model- Welfare properties of duopolistic markets- Collusive models- Cartels and Price leadership

**Module V Theory of Games**

Basic concepts-Cooperative versus non-cooperative game- Zero sum versus non- zero sum game- Prisoner's dilemma- Dominant strategies- Nash equilibrium- Prisoner's dilemma- Pure strategies- Mixed strategies- repeated games- Sequential games- Threats, commitments and credibility.



UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Language and Literature - Scheme and Syllabus of BA English Language and Literature under CBCSS UG Regulations 2019 incorporating Outcome Based Education-Implemented w.e.f 2020 Admission onwards- Subject to ratification by Academic Council -Orders Issued

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**G & A - IV - B**

U.O.No. 5632/2021/Admn

Dated, Calicut University.P.O, 27.05.2021

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*Read:-*1.U.O.No. 8653/2019/Admn Dated ,02.07.2019

- 2.Minutes of the meeting of the Board of Studies in English UG held on 12/05/2021(Item No 1)
- 3.Remarks of the Dean, Faculty of Language and Literature dated 22/05/2021
4. Orders of Vice Chancellor dated 24/5/2021.

ORDER

1. The scheme and syllabus of BA English Language and Literature in accordance with CBCSS UG Regulations 2019 has been implemented in the University, with effect from 2019 Admission onwards, vide paper read (1) above.
2. The meeting of the Board of Studies in English UG held on 12/05/2021, vide paper read (2) above has approved Out Come Based Education(OBE) in the syllabus of BA English Language and Literature, under CBCSS UG Regulations 2019, without changing the content ,w.e.f 2020 admission onwards.
3. The Dean, Faculty of Language and Literature has approved, vide paper read (3) above, the minutes of the meeting of the Board of Studies in Hindi UG held on 12/05/2021.
4. Considering the urgency in implementation of the syllabus, sanction has been accorded by the Vice Chancellor on 24.05.2021 to implement Outcome Based Education in the existing syllabus of BA English Language and Literature, in tune with the new CBCSS UG Regulations 2019, without changing the content, with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. The scheme and syllabus of BA English Language and Literature under CBCSS UG Regulations 2019 incorporating Outcome Based Education (OBE) in the existing syllabus, without changing the content is therefore implemented with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
6. Orders are issued accordingly. (Syllabus appended)

Ajitha P.P

Joint Registrar

To

1.The Principals of all Affiliated Colleges 2. The Director, SDE  
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**Course Outcome**  
**Part I**  
**CORE COURSES**

**SEMESTER—I**

COURSE CODE—ENG1B01

TITLE OF THE COURSE—**INTRODUCING LITERATURE**

COURSE OUTCOME

After the completion of the course students should be able to:-

- Differentiate between with the different aspects of the language of literature.
- Discover the linguistic structures of poetic texts.
- Distinguish diverse points of view within a single text and locate the rationale of polyphony.
- Determine and interpret the dominant voice/s within the text and its agendas.
- Discriminate marginalized voices and determine themselves to the voices of the child, Dalit, transgender and female.

**SEMESTER—II**

COURSE CODE— ENG2B02

TITLE OF THE COURSE— **APPRECIATING POETRY**

COURSE OUTCOME

After the completion of the course students should be able to:-

- Outline the basic elements of poetry, the stylistic and rhetorical devices and various genres of poetry.
- Analyze and identify the trends in poetry and the linguistic structures of poetic texts.
- Discover various perspectives in reading poetry like gender, race, caste, ethnicity, religion, region, environment and nation.
- Define different forms of poetry in British and American literature and classify different forms and themes of poetry across the globe in the history of literature.
- Appreciate poetry as an art form.



UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Science - Syllabus of MSc Geography Programme under CBCSS PG Regulations 2019 with effect from 2019 Admission onwards - Implemented- Orders Issued

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**G & A - IV - J**

U.O.No. 8956/2019/Admn

Dated, Calicut University.P.O, 06.07.2019

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*Read:-*1. U.O.No. 4487/2019/Admn dated 26/03/2019

2. Item No. 2 in the minutes of the meeting of the Board of Studies in Geography on 13/06/2019

3. Item No. 1.30 in the minutes of the meeting of Faculty of Science held on 27/06/2019

ORDER

The Regulations for Choice Based Credit and Semester System for Post Graduate (PG) Curriculum 2019 (CBCSS PG Regulations 2019) for all PG Programmes under CBCSS-Regular and SDE/PrivateRegistration with effect from 2019 admission has been implemented vide paper read first above.

The meeting of Board of Studies in Geography held on 13/06/2019 has approved the Syllabus of M Sc Geography Programme in tune with the new CBCSS PG Regulations with effect from 2019 Admission onwards, vide paper read second above.

The Faculty of Science at its meeting held on 27/06/2019 has approved the minutes of the meeting of the Board of Studies in Geography held on 13/06/2019, vide paper read third above.

Under these circumstances, considering the urgency, the Vice Chancellor has accorded sanction to implement the Scheme and Syllabus of MSc Geography Programme in accordance with new CBCSS PG Regulations 2019, for affiliated colleges in the University with effect from 2019 Admission onwards, subject to ratification by the Academic Council.

The Scheme and Syllabus of M Sc Geography Programme in accordance with CBCSS PG Regulations 2019, is therefore implemented in the University with effect from 2019 Admission onwards.

Orders are issued accordingly. (Syllabus appended)

Biju George K

Assistant Registrar

To

The Principals of all Affiliated Colleges

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**POSTGRADUATE PROGRAMME IN GEOGRAPHY (M.Sc. Geography)**

**SYLLABUS**

**SEMESTER I**

**GRY1C01 GEOMORPHOLOGY**

**Instructional Hours /Week: 5**

**Credits: 4**

<b>Modules</b>	<b>Themes</b>	<b>Topics</b>
<b>1</b>	<b>Development of Geomorphology</b>	Introduction to geomorphology,
		Terminologies and definitions. scope,
		Content and recent trends in geomorphology.
		Geomorphic system basic concepts in geomorphology.
		Approaches to geomorphology - static, dynamic and applied
<b>2</b>	<b>Structure Process and Form</b>	Large-scale tectonic and structural landforms
		Small-scale tectonic and structural landforms
		Weathering and related landforms
		Hill slopes - Mass movement
		Karst landscapes
		Fluvial landscapes
		Glacial and glacio-fluvial landscapes
		Periglacial landscapes
		Aeolian landscapes
		Coastal landscapes
<b>3</b>	<b>Historical changes Among the Landforms</b>	Quaternary landscapes-Pleistocene and Holocene changes
		Fluvial landscapes
		Aeolian landscapes
		Coastal landscapes
		Ancient landscapes -old plains
		Ancient landforms (relict, exhumed, and stagnant)
<b>4</b>	<b>Land Form Evolution</b>	Evolution in different environments
		Concept of slopes- evolution, slope elements
		Theories of slope – slope decline, slope replacement and parallel retreat of slope models.
<b>5</b>	<b>Applied Geomorphology</b>	Climatic Geomorphology
		Diagnostic land forms
		Morphogenetic regions
		Anthropogenic geomorphology
		Human intervention on geomorphic processes
		Applied geomorphology: Meaning and concept
Application in hydrology engineering projects.		



UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Science - Syllabus of BSc Geography Programme under CBCSS UG Regulations 2019 with effect from 2019 Admission onwards - Implemented- Orders Issued

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**G & A - IV - J**

U.O.No. 8741/2019/Admn

Dated, Calicut University.P.O, 03.07.2019

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*Read:-*1. U.O.No. 4368/2019/Admn dated 23/03/2019

2. Item No. 1 of the minutes of the meeting of the Board of Studies in Geography held on 13/06/2019

3. Item No. I.30 of the minutes of the meeting of Faculty of Science held on 27/06/2019

ORDER

The Regulations for Choice Based Credit and Semester System for Under Graduate (UG) Curriculum-2019 (CBCSS UG Regulations 2019) for all UG Programmes under CBCSS-Regular and SDE/Private Registration with effect from 2019 admission has been implemented vide paper read first above.

The meeting of Board of Studies in Geography held on 13/06/2019 has finalised the Syllabus of B.Sc Geography Programme in tune with the new CBCSS UG Regulation with effect from 2019 Admission onwards, vide paper read second above.

The Faculty of Science at its meeting held on 27/06/2019 has approved the minutes of the meeting of the Board of Studies in Geography held on 13/06/2019, vide paper read third above.

Under these circumstances, considering the urgency, the Vice Chancellor has accorded sanction to implement the Scheme and Syllabus of B.Sc Geography Programme in accordance with the new CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards, subject to ratification by the Academic Council.

Sanction is therefore accorded for implementing the Scheme and Syllabus of B.Sc Geography Programme in accordance with CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards.

Orders are issued accordingly. (Syllabus appended)

Biju George K

Assistant Registrar

To

The Principals of all Affiliated Colleges

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# UNDERGRADUATE PROGRAMME IN GEOGRAPHY (B.Sc. Geography)

## SYLLABUS

### SEMESTER I

#### GRY1B01 FUNDAMENTALS OF GEOMORPHOLOGY

Instruction Hours: TWO hours / Week

Credit: 3

Module	Theme	Contents
1	<b>Origin and Interior of The Earth</b>	<ul style="list-style-type: none"><li>• Introduction to Physical Geography, Terminologies and Definitions.</li><li>• Scope, Content and trends in Physical geography.</li><li>• Origin of Earth - Explanation through Nebular, Planetesimal, Binary Star &amp; Tidal theories.</li><li>• Basic Concepts - (uniformitarianism, Geologic Structure, Geomorphic Processes, Geomorphic Stage, Relief, Complexity of Geomorphic Evolution, Pleistocene Climate, Appreciation of World Climates, Historical Extensions)</li><li>• Forces and Earth Movements. - Emphasis on Endogenetic forces.</li><li>• Geological Time Scale (GTS).</li></ul>
2	<b>Continental Drift</b>	<ul style="list-style-type: none"><li>• Structure and Interior of Earth.</li><li>• Tetrahedral Theory - Critical Evaluation.</li><li>• Continental Drift Theory - Critical Evaluation.</li><li>• Developments leading to Plate tectonics - Convection Current, Sea Floor Spreading, Palaeomagnetism.</li></ul>
3	<b>Plate Tectonics &amp; Volcanism</b>	<ul style="list-style-type: none"><li>• Theory of Plate Tectonics - Geometric and Kinematic parts.</li><li>• Evidences of Plate Movement.</li><li>• The Driving Mechanism.</li><li>• Critical Evaluation of the Theory of Plate Tectonics.</li><li>• Volcanism</li></ul>
4	<b>Plate Tectonics and Mountain Building</b>	<ul style="list-style-type: none"><li>• Mountain building Processes.</li><li>• The Geosynclinal theory.</li><li>• Fold Mountain Orogeny and Plate Tectonics.</li><li>• Orogeny and Continental Accretion.</li><li>• Volcanic Island Arcs</li></ul>
5	<b>Plate Tectonics and Earthquakes</b>	<ul style="list-style-type: none"><li>• Origin and Evolution of Earth's Crust.</li><li>• Isostasy.</li><li>• Earthquakes and Plate Tectonics.</li><li>• Factors controlling Landform Development.</li></ul>





UNIVERSITY OF CALICUT

**Abstract**

General and Academic- Faculty of Humanities- BA History programme- Syllabus of fifth and sixth semester BA History (including Dual Core) along with the Syllabus of Gender Studies (HIS4B20) for IV semester BA History (dual core) - under CBCSS UG Regulation 2019 - with effect from 2019 Admission onwards - Implemented- Orders Issued

**G & A - IV - B**

U.O.No. 12854/2020/Admn

Dated, Calicut University.P.O, 22.12.2020

- Read:-*
1. UO. No. 4368/2019/Admn Dated: 23.03.2019
  2. UO. No. 8479/2019/Admn Dated: 30.06.2019
  3. UO. No. 3514/2020/Admn Dated: 17.03.2020
  4. UO. No. 5130/2020/Admn Dated: 04.06.2020
  5. Item No.3 of the Minutes of the meeting of the Board of Studies in History-UG held on 16.07.2020
  6. Item No. 19 of the Minutes of the meeting of the Faculty of Humanities held on 26.08.2020.
  7. Extract of the item No.II.D of the minutes of the LXXXI meeting of the Academic Council held on 01.10.2020.

**ORDER**

1. The Regulations for Choice Based Credit and Semester System for Under Graduate (UG) Curriculum- 2019 (CBCSS UG Regulations 2019) for all UG Programmes under CBCSS-Regular and SDE/Private Registration, with effect from 2019 Admission, has been implemented vide paper read (1) above.
2. The Scheme and Syllabus of I and II Semesters of BA History Programme (including Dual core) in tune with new CBCSS UG Regulation-2019, has been implemented in the University with effect from 2019 Admission onwards, vide paper read (2) above.
3. The Syllabus of the Complementary Course, Historical Tourism offered by BA History programme in accordance with CBCSS UG Regulations-2019 has been implemented in the University with effect from 2019 Admission onwards, vide paper read (3) above.
4. The Scheme and Syllabus of III and IV Semesters of BA History Programme (including Dual core) in tune with new CBCSS UG Regulation-2019, has been implemented in the University with effect from 2019 Admission onwards, vide paper read (4) above.
5. The meeting of the Board of Studies in History (UG), held on 16.07.2020 resolved to approve the Syllabus of BA History Programme w.e.f 2019 admissions (V and VI Sem), along with the Syllabus of Gender Studies (HIS4B20) for IV semester BA History (double main), vide paper read (5) above.
6. The online meeting of the Faculty of Humanities held on 26.08.2020, vide paper read (6) above, has approved the above resolution of the Board of Studies.
7. The meeting of the Academic Council held on 01.10.2020 has approved the minutes of the meeting of the Board of Studies in History UG held on 16.07.2020 as approved by Faculty of Humanities vide paper read as (7) above. Sanction has been accorded by the Vice Chancellor in the file No. 7251/GA-IV-B1/2013/CU dated 09.10.2020 to implement the above decision of the Academic Council.
8. Sanction is therefore accorded to implement the Scheme and Syllabus of BA History Programme - Vth and VIth semester (including Dual Core) along with the Syllabus of Gender Studies (HIS4B20) for IVth semester BA History (dual core) in accordance with the CBCSS UG Regulations-2019, in the University with effect from 2019 Admission onwards.
9. Orders are issued accordingly. (Syllabus of I to VI sem with Model question papers appended).

Arsad M

Assistant Registrar

To

1.The Principals of all Affiliated Colleges 2. Director, SDE  
Copy to: PS to VC/PA to PVC/ PA to Registrar/PA to CE/JCE I/JCE II/JCE VIII/EX IV and EG  
Sections/GA I F/CHMK Library/Information Centres/SF/DF/FC

# **HIS1B01 TRENDS IN HISTORIOGRAPHY**

**Course Category: Core Course 1**

**No. of Credits: 5**

**No. of Contact Hours: 6 Hours per week**

This course is designed to expose first semester students, to the basic understanding regarding the development of History as a discipline. The emphasis will be on the major trends in the arena of Historical Writing and Thought. The course will illustrate how the methodological and philosophical shifts have contributed for the development of History as a discipline.

## **Module I**

- ▲ Meaning of Historiography – Quasi History
- ▲ Past and History- Differentiation and Conceptualization
- ▲ Nature and Character of Greek Historical Writings- Herodotus
- ▲ Nature of Medieval Historical Writings- St: Augustine – Ibn Khaldun

### **Books for Study**

1. R G Collingwood, *The Idea of History*, OUP, 1994.
2. Shashi BhushanUpadhyay, *Historiography in the Modern World: Western and Indian Perspectives*, OUP, 2016.

## **Module II**

- ▲ Vico and New science – Positivism- Auguste Comte and Ranke
- ▲ Marx and Historical Materialism
- ▲ Cultural History- Jacob Burckhardt
- ▲ A J Toynbee and the Study of Civilizations

### **Books for Study**

1. R G Collingwood, *The Idea of History*, OUP, 1994.
2. Shashi BhushanUpadhyay, *Historiography in the Modern World: Western and Indian Perspectives*, OUP, 2016.



**UNIVERSITY OF CALICUT**

**Abstract**

General and Academic - Faculty of Language and Literature - Scheme and Syllabus of BA Malayalam Language and Literature Programme under CBCSS UG Regulations 2019, -incorporating Outcome Based Education- Implemented w.e.f 2020 Admission onwards- Subject to ratification by Academic Council -Orders Issued

**G & A - IV - B**

U.O.No. 5778/2021/Admn

Dated, Calicut University.P.O, 31.05.2021

*Read:-*1.U.O.No. 10576/2019/Admn Dated, 07.08.2019

2.Minutes of the combined meeting of the BoS in Malayalam UG and Malayalam PG held on 17/05/2021(Item No 1)

3.Remarks of the Dean, Faculty of Language and Literature dtd 26/05/2021.

4.Orders of the Vice Chancellor dtd 28/05/2021

**ORDER**

1. The scheme and syllabus of BA Malayalam Language and Literature Programme in accordance with CBCSS UG Regulations 2019 has been implemented in the University, with effect from 2019 Admission onwards, vide paper read (1) above.
2. The combined meeting of the Board of Studies in Malayalam UG and Malayalam PG held on 17/05/2021, vide paper read (2) above has approved Out Come Based Education(OBE) in the existing syllabus of BA Malayalam Language and Literature Programme, under CBCSS UG Regulations 2019, without changing the content, w.e.f 2020 admission onwards.
3. The Dean, Faculty of Language and Literature has approved, vide paper read (3) above, the minutes of the combined meeting of the Board of Studies in Malayalam UG and Malayalam PG held on 17/05/2021.
4. Considering the urgency in implementation of the syllabus, sanction has been accorded by the Vice Chancellor on 28.05.2021 to implement Outcome Based Education in the existing syllabus of BA Malayalam Language and Literature Programme, in tune with the new CBCSS UG Regulations 2019, without changing the content, with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. The scheme and syllabus of BA Malayalam Language and Literature Programme, under CBCSS UG Regulations 2019 incorporating Outcome Based Education (OBE) in the existing syllabus, without changing the content is therefore implemented in the University with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
6. Orders are issued accordingly. (Syllabus appended)

Ajitha P.P

Joint Registrar

To

1.The Principals of all Affiliated Colleges 2. The Director, SDE

Copy to: PS to VC/PA to PVC/ PA to Registrar/PA to CE/JCE I/JCE II/JCE III/JCE IV/JCE VIII/EX and EG Sections/GA I F /CHMK Library/Information Centres /IQAC/SF/DF/FC

Forwarded / By Order

Section Officer

1. സാംസ്കാരിക ചരിത്രപഠനത്തിന്റെ സാധ്യതകളും അറിവുകളും ഉപയോഗപ്പെടുത്തി കേരളീയ സമൂഹത്തിന്റെ രൂപീകരണം, പരിണാമം എന്നിവയെക്കുറിച്ച് അടിസ്ഥാന ധാരണകൾ രൂപപ്പെടുത്തുക.
2. കേരളത്തിന്റെ സാംസ്കാരിക സവിശേഷതകൾ തിരിച്ചറിയാൻ അവസരമൊരുക്കുക.
3. പൗരബോധവും മാനവികതയും രൂപപ്പെടുത്താൻ സഹായകമാവുക
4. സാമൂഹിക മാറ്റത്തിന് ഉതകുന്ന വിധത്തിലുള്ള വിമർശനാത്മക ചിന്ത വളർത്തിയെടുക്കാൻ പ്രാപ്തരാക്കുക.

**മൊഡ്യൂൾ 1**

സംസ്കാരം - നിർവചനങ്ങൾ- സംസ്കാരത്തെക്കുറിച്ചുള്ള വിവിധ കാഴ്ചപ്പാടുകൾ- ചരിത്രവും സംസ്കാരവും തമ്മിലുള്ള ബന്ധം- കേരളചരിത്ര രചനാ പരിശ്രമങ്ങൾ- സാധ്യതകളും പരിമിതികളും- കേരളോല്പത്തിയുമായി ബന്ധപ്പെട്ട കഥകളുടെ വിലയിരുത്തൽ- കേരളസംസ്കാരപഠനത്തിന് സഹായകമായ ഉപാദാനങ്ങൾ.

കേരളം ഭൂമിശാസ്ത്രപരമായ പ്രത്യേകതകൾ- ആദിമനിവാസികൾ- ഗോത്രസംസ്കൃതി- മഹാശിലാ സംസ്കാരം- ആദ്യകാല വിദേശബന്ധങ്ങൾ- വിദേശ ബന്ധങ്ങൾ കൊണ്ടുണ്ടായ സാംസ്കാരിക നേട്ടം.

**മൊഡ്യൂൾ 2**

സംഘകാലത്തെ കേരളം- ഗണത്തിന്റെയും തൊഴിലിന്റെയും അടിസ്ഥാനത്തിലുള്ള സാമൂഹ്യ വിഭജനം- സാംസ്കാരിക ജീവിതം- കാർഷിക സംസ്കൃതി- രാഷ്ട്രീയ ചരിത്രം- ആചാരാനുഷ്ഠാനങ്ങൾ- ഭാഷ- സാഹിത്യകൃതികൾ- ബുദ്ധ ജൈന മതങ്ങളുടെ സംഭാവനകൾ.

കാർഷികവൽക്കരണവും ആര്യാഗമനവും - സാമ്പത്തിക, സാമൂഹിക, സാംസ്കാരിക, രംഗങ്ങളിൽ സംഭവിച്ച മാറ്റം- ബ്രാഹ്മണ ഗ്രാമങ്ങളുടെ രൂപീകരണം- ക്ഷേത്രസംസ്കാരത്തിന്റെ ആരംഭം- പെരുമാൾ വാഴ്ച- ഭരണരംഗം

**മൊഡ്യൂൾ 3**

വിവിധ മതങ്ങൾ- ജൂതമതം, ഇസ്ലാം മതം, ക്രിസ്തുമതം- ശ്രീശങ്കരനും അദ്വൈതവും- ബുദ്ധ ജൈന മതങ്ങളുടെ തകർച്ച- ബ്രാഹ്മണാധിപത്യം- ജാതിവ്യവസ്ഥ- ഉത്ഭവം, ജാതിയും തൊഴിലും, ജാതിയും ഉപജാതികളും

പുതിയ സാമൂഹിക വിഭാഗങ്ങളുടെ രൂപപ്പെടൽ- ജന്മിത്തം, ഊരാളർ, കാരാളർ, അടിയാളർ- കച്ചവട സംഘങ്ങൾ- മുന്നൂറ്റവർ, അറുനൂറ്റവർ- അങ്ങാടികൾ- കച്ചങ്ങൾ- ദായക്രമം- മരുമക്കത്തായം- നാടുവാഴികളും സ്വരൂപങ്ങളും- വേണാട്, കൊച്ചി, കോഴിക്കോട്, കോലത്തുനാട്, അറയ്ക്കൽ രാജവംശങ്ങൾ

**മൊഡ്യൂൾ 4**

ക്ഷേത്ര കേന്ദ്രിത സംസ്കാരം- വിദ്യാലയങ്ങൾ, വേദപഠനശാലകൾ, പട്ടത്താനം, കടവല്ലൂർ അന്യോന്യം, ദേവദാസികൾ, കൂത്ത്, കൂടിയാട്ടം, അനുഷ്ഠാനകലകൾ- തെയ്യം, മുടിയേറ്റ്, പടയണി- ഭാഷയുടെ വളർച്ച- പാട്ടും മണിപ്രവാളവും- നാടൻ പാട്ടുകൾ- വടക്കൻ പാട്ട്, തെക്കൻ പാട്ട്- വിജ്ഞാന രംഗത്തുണ്ടായ വളർച്ച - ഗണിതം, ജ്യോതിശാസ്ത്രം, വാസ്തുവിദ്യ- ലോഹ വ്യവസായം, ആയുർവേദം.



UNIVERSITY OF CALICUT

**Abstract**

General & Academic - CCSS PG Regulations 2019 - Faculty of Science- Scheme and Syllabus of M.Sc Mathematics Programme w.e.f 2020 Admission onwards - Incorporating Outcome Based Education - Implemented - Subject to ratification of Academic Council - Orders Issued.

**G & A - IV - J**

U.O.No. 5310/2021/Admn

Dated, Calicut University.P.O, 15.05.2021

- Read:-*1) U.O.No. 8952/2019/Admn Dated 06.07.2019  
2) U.O.No. 1339/2020/Admn Dated 31.01.2020  
3) Item no.2 in the minutes of the meeting of Board of Studies in Mathematics PG, Dated 09.04.2021  
4) Remarks of the Dean, Faculty of Science, Dated 08.05.2021.  
5) Orders of the Vice Chancellor in the file of even no, Dated 10.05.2021

ORDER

1. The scheme and syllabus of M.Sc Mathematics Programme under CCSS PG Regulations 2019 in the Teaching Department of the University, w.e.f 2019 admission onwards has been implemented, vide paper read (1) above, and the same has been modified, vide paper read (2) above.
2. The Board of Studies in Mathematics PG has resolved to incorporate Outcome Based Education (OBE) in the scheme and syllabus of M.Sc Mathematics Programme under Teaching Department of the University, in tune with the new CCSS PG Regulations 2019 with effect from 2020 Admission onwards, vide paper read (3) above.
3. The Dean, Faculty of Science, vide paper read (4) above, has approved to implement the scheme and syllabus of M.Sc Mathematics Programme (CCSS-PG-2019) incorporating Outcome Based Education (OBE), in the syllabus forwarded by Chairperson, Board of studies in Mathematics PG, in tune with the new CCSS PG Regulations 2019 with effect from 2020 Admission onwards.
4. Considering the urgency, the Vice Chancellor has accorded sanction to implement the scheme and syllabus of M.Sc Mathematics Programme incorporating Outcome Based Education (OBE), in tune with the new CCSS PG Regulations under Teaching Departments of the University with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. Scheme and syllabus of M.Sc Mathematics Programme (CCSS) incorporating Outcome Based Education (OBE) is therefore implemented with effect from 2020 Admission onwards under Teaching Department of the University, subject to ratification by the Academic Council.
6. Orders are issued accordingly. U.O.No.1339/2020/Admn Dated 31.01.2020, is modified to this extend. (Syllabus appended )

Arsad M

Assistant Registrar

To

The Head, Department of Mathematics  
Copy to: PS to VC/PA to PVC/ PA to Registrar/PA to CE/JCE I/JCE V/DoA/EX and EG  
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Section Officer

## Detailed Syllabi

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### MAT1C01: ALGEBRA - I

No. of Credits: 4

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#### Course Outcome: Upon the successful completion of the course students will:

- Learn factor group computation.
- Understand the notion of group action on a set.
- Understand the notion of free groups.
- Understand the concepts rings of polynomials and ideals.
- Learn basic properties of field extensions.

TEXT: JOHN B. FRALEIGH, A FIRST COURSE IN ABSTRACT ALGEBRA(7<sup>th</sup>

Edn.), Pearson Education Inc., 2003.

#### Unit I

Direct products & finitely generated Abelian Groups; Plane Isometries (Omit the proof of theorem 12.5); Factor Groups; Factor-Group Computations and Simple Groups  
[Sections: 11; 12(Omit the proof of theorem 12.5); 14; 15]

#### Unit II

Group Action on a set; Applications of G-sets to counting; Field of quotients of an Integral Domain[Sections: 16; 17; 21]

#### Unit III

Rings of Polynomials; Factorization of polynomials over a field; Homomorphisms and factor rings; Prime and Maximal Ideals  
[Sections: 22; 23; 26; 27]

#### Unit IV

Introduction to extension fields; Vector Spaces (Theorem 30.23 only); Algebraic extensions (omit Proof of the Existence of an Algebraic Closure); Geometric constructions; Finite fields  
[Sections: 29; 30(Theorem 30.23 only); 31(omit Proof of the Existence of an Algebraic Closure); 32; 33]

## References

- [1] **N. Bourbaki**: Elements of Mathematics: Algebra I, Springer; 1998
- [2] **Dummit and Foote**: Abstract algebra(3rd edn.); Wiley India; 2011
- [3] **P.A. Grillet**: Abstract algebra(2nd edn.); Springer; 2007
- [4] **I.N. Herstein**: Topics in Algebra(2nd Edn); John Wiley & Sons, 2006.
- [5] **T.W. Hungerford**: Algebra; Springer Verlag GTM 73(4th Printing); 1987
- [6] **N. Jacobson**: Basic Algebra-Vol. I; Hindustan Publishing Corporation(India), Delhi; 1991
- [7] **T.Y. Lam**: Exercises in classical ring theory(2nd edn); Springer; 2003
- [8] **C. Lanski**: Concepts in Abstract Algebra; American Mathematical Society; 2010
- [9] **N.H. Mc Coy**: Introduction to modern algebra, Literary Licensing, LLC; 2012
- [10] **S. M. Ross**: Topics in Finite and Discrete Mathematics; Cambridge; 2000
- [11] **J. Rotman**: An Introduction to the Theory of Groups(4th edn.); Springer, 1999.



**UNIVERSITY OF CALICUT**

**Abstract**

General & Academic - CBCSS UG Regulations 2019 - Scheme and Syllabus of B.Sc Mathematics Programme, w.e.f 2020 Admission onwards -Incorporating Outcome Based Education - Implemented - Subject to ratification of Academic Council - Orders Issued.

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**G & A - IV - J**

U.O.No. 5657/2021/Admn

Dated, Calicut University.P.O, 27.05.2021

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- Read:-* 1) U.O.No. 9389/2020/Admn Dated,13.10.2020.  
2) Item no.3 in the minutes of the meeting of Board of Studies in Mathematics, Dated 31.03.2021.  
3) Remarks of the Dean, Faculty of Science, Dated 16.04.2021.  
4) Orders of the Vice Chancellor in the file of even no, Dated 17.04.2021.

**ORDER**

1. The scheme and syllabus of B.Sc Mathematics Programme under CBCSS UG Regulations 2019 of the University, w.e.f 2020 admission onwards has been implemented, vide paper read (1) above.
2. The Board of Studies in Mathematics UG has resolved to incorporate Outcome Based Education (OBE) in the scheme and syllabus of B.Sc Mathematics Programme, in tune with the new CBCSS UG Regulations 2019 with effect from 2020 Admission onwards, vide paper read (2) above.
3. The Dean, Faculty of Science, vide paper read (3) above, has approved to implement the scheme and syllabus of B.Sc Mathematics Programme (CBCSS-UG-2019) incorporating Outcome Based Education (OBE), in the existing syllabus forwarded by the Chairperson, Board of Studies in Mathematics, in tune with the new CBCSS UG Regulations 2019 with effect from 2020 Admission onwards.
4. Considering the urgency, the Vice Chancellor has accorded sanction to implement the scheme and syllabus of B.Sc Mathematics Programme incorporating Outcome Based Education (OBE), in the existing syllabus forwarded by the Chairperson, Board of Studies in Mathematics UG in tune with the new CBCSS UG Regulations 2019 of the University with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. Scheme and syllabus of B.Sc Mathematics (CBCSS) programme incorporating Outcome Based Education (OBE) in the existing syllabus, in tune with CBCSS UG Regulations 2019, is therefore implemented with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
6. Orders are issued accordingly.
7. U.O.No. 9389/2020/Admn, Dated13.10.2020 is modified to this extend.( syllabus appended).

Ajitha P.P

Joint Registrar

To

Principals of all affiliated colleges  
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Section Officer

## SEMESTER – I

### MTS1B01 : BASIC LOGIC AND NUMBER THEORY

4 Hours/Week

4 Credits 100 Marks[Int: 20 + Ext : 80]

#### Aims, Objectives and Outcomes

Logic, the study of principles of techniques and reasoning, is fundamental to every branch of learning. Besides, being the basis of all mathematical reasoning, it is required in the field of computer science for developing programming languages and also to check the correctness of the programmes. Electronic engineers apply logic in the design of computer chips. The first module discusses the fundamentals of logic, its symbols and rules. This enables one to think systematically, to express ideas in precise and concise mathematical terms and also to make valid arguments. How to use logic to arrive at the correct conclusion in the midst of confusing and contradictory statements is also illustrated.

The classical number theory is introduced and some of the very fundamental results are discussed in other modules. It is hoped that the method of writing a formal proof, using proof methods discussed in the first module, is best taught in a concrete setting, rather than as an abstract exercise in logic. Number theory, unlike other topics such as geometry and analysis, doesn't suffer from too much abstraction and the consequent difficulty in conceptual understanding. Hence, it is an ideal topic for a beginner to illustrate how mathematicians do their normal business. By the end of the course, the students will be able to enjoy and master several techniques of problem solving such as recursion, induction etc., the importance of pattern recognition in mathematics, the art of conjecturing and a few applications of number theory. Enthusiastic students will have acquired knowledge to read and enjoy on their own a few applications of number theory in the field of art, geometry and coding theory. Successful completion of the course enables students to

- Prove results involving divisibility, greatest common divisor, least common multiple and a few applications.
- Understand the theory and method of solutions of LDE.
- Solve linear congruent equations.
- Learn three classical theorems viz. Wilson's theorem, Fermat's little theorem and Euler's theorem and a few important consequences.





**UNIVERSITY OF CALICUT**

**Abstract**

General & Academic Branch -Faculty of Commerce and Management Studies-Master of Commerce Programme under CBCSS PG Regulations 2019 w.e.f 2020 Admission on wards for affiliated colleges and SDE -Incorporating Outcome Based Education - Implemented - Subject to ratification by Academic Council -Orders Issued.

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**G & A - IV - E**

U.O.No. 5725/2021/Admn

Dated, Calicut University.P.O, 29.05.2021

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- Read:-*1.U.O No.16567/2019/Admn Dated 22.11.2019, U.O No.16664/2019/Admn Dated 26.11.2019 and U.O.No. 8387/2019/Admn Dated 29.06.2019.  
2.Item No.1 of the minutes of meeting of BoS in in Commerce (PG) held on 14.05.2021.  
3.Email dated 19.05.2021 from the Chairman, BOS in Commerce (PG).  
4.Order of Vice Chancellor of the file of even No. dated 27.05.2021.

**ORDER**

1. The scheme and syllabus of Master of Commerce Programme under CBCSS PG Regulations 2019 has been implemented w.e.f 2019 admission onwards for affiliated colleges and SDE , vide paper read (1) above.
2. The meeting of the Board of Studie in Commerce (PG), held on 14.05.2021, vide paper read (2) above, approved the Out Come Based Education (OBE) syllabus of master of Commerce (M.Com) Programme under CBCSS PG Regulations 2019, without changing the content w.e.f 2020 admission onwards.
3. The Dean, Faculty of Commerce and Management Studies and Chairman, BoS in Commerce (PG), vide paper read (3) above, has approved the above resolution of the Board of Studie in Commerce (PG), held on 14.05.2021 and forwarded the Out Come Based Education (OBE) syllabus of master of Commerce (M.Com) Programme.
4. Considering the urgency in implementation of the syllabus, sanction has been accorded by the Vice Chancellor on 27.05.2021 to implement Outcome Based Education in the existing syllabus of Master of Commerce Programme (CBCSS PG 2019) without changing the content, with effect from 2020 Admission onwards, subject to ratification by the Academic Council, vide paper read as (4) above.
5. The scheme and Syllabus effecting Outcome Based Education in the existing syllabus of Master of Commerce Programme (CBCSS PG 2019) for affiliated Colleges and SDE/Private Registration, without changing the content, with effect from 2020 Admission onwards, is therefore implemented, subject to ratification by the Academic Council.

Orders are issued accordingly. (syllabus appended)

Ajitha P.P

Joint Registrar

To

1.The Principals of Affiliated Colleges. 2 The.Director, SDE.

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**UNIVERSITY OF CALICUT**

**Master of Commerce (CBCSS)**

**Semester I**

**MCM1C01: BUSINESS ENVIRONMENT AND POLICY**

**80 Hours**

**Credit:4**

**Objectives:**

To familiarise students with the concepts of macro-economic in which a Business organization operates.  
To give an idea about the policies of the government and assess their impact on business.

**Course outcome:**

- Analyse the environment of a business from the various internal and external perspectives
- Evaluate how the economic environment and its configurations influence in business decision making.
- Apply the role of New Economic Policy and the Economic reforms in the perspective of Business.
- To make understand the various policies related to FDI & Multi-National Corporations.
- To give an in-depth knowledge about the recent Government policies regarding Environment management.

**Module I:** Business Environment: Meaning & Elements -Components and significance-Scope-political, Economic, Social, Technological, Legal, Cultural and Labour Environment – Trade Unions – Quality Circles – External Factors Influencing Business Environment – Dimensions of International Business Environment –Challenges

**15 Hours**

**Module II:** Structure of Indian Economy: Economic Systems-Economic Planning– Planning Commission and NITI Ayog – Public Sector – Changing Role– Relevance – Public Sector Reforms – Public Private Participation – Privatization and Disinvestments – Fiscal Policy – Monetary Policy – Structure of Union and State Budgets – Sources of Revenue – Management of Public Debt. – GST- History and Development in India

**20 hours**

**Module III:** Profile of Indian Economy: New Economic and Industrial Policy–Recent Economic & Tax Reforms in India – GST-Land Reforms – Liberalization – Problems of Growth – Unemployment – Poverty – Regional Imbalances – SEZ – Social Injustices – Inflation – Black Money – Lack of Technical Knowledge and Information – Globalization Various Aspects – Consequences.

**15 hours**

**Module IV: Foreign** Direct Investment and Institutional Investment: Forms–Policy - FDI in Retail Trade – Problems and Consequences – FEMA – Multinational Corporations Role and Recent Trends – Problems and Consequences – Competition Law-Import& Export Policies- Start-ups- Digital economy- CRYPTO currency, Fin tech

**10 hours**

**Module V:** Environment management-Degradation of Natural Environment-Air pollution, Water



UNIVERSITY OF CALICUT

**Abstract**

General & Academic - Faculty of Fine Arts - Scheme and Syllabus of BA Music Programme as per CBCSS UG Regulation 2019-Incorporating Outcome Based Education- Implemented w.e.f 2020 Admission onwards - Subject to ratification by Academic Council -Orders Issued.

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**G & A - IV - B**

U.O.No. 5791/2021/Admn

Dated, Calicut University.P.O, 31.05.2021

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- Read:-*1.U.O.No. 10882/2019/Admn Dated, 17.08.2019  
2.Minutes of the meeting of the Board of Studies in Music(SB) held on 12/05/2021(item No 3)  
3.Minutes of the Faculty of Fine Arts held on 24/05/2021(Item No 5)  
4.Orders of Vice Chancellor dtd 29/05/2021

ORDER

1. The Scheme and Syllabus of BA Music Programme in accordance with CBCSS UG Regulations 2019, w.e.f 2019 admission onwards has been implemented in the University vide paper read as (1) above.
2. The meeting of the Board of Studies in Music(SB) held on 12/05/2021, vide paper read (2) above, has resolved to approve Outcome Based Education (OBE) in the existing syllabus of BA Music Programme, under CBCSS UG Regulations 2019, w.e.f 2020 admission onwards, after correcting the code of the complementary courses.
3. The Faculty of fine Arts , vide paper read (3) above, has approved the minutes of the meeting of the Board of Studies in Music(SB) held on 12/05/2021.
4. Considering the urgency in implementation of the syllabus, sanction has been accorded by the Vice Chancellor on 29.05.2021 to implement Outcome Based Education in the existing syllabus of BA Music Programme (CBCSS UG 2019), with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. The Scheme and Syllabus of BA Music Programme in accordance with CBCSS UG Regulations 2019 , incorporating Outcome Based Education (OBE) in the existing syllabus, after correcting course code of the complementary courses, without changing the content, is therefore implemented in the University with effect from 2020 Admission onwards, subject to ratification by the Academic Council .
6. Orders are issued accordingly (syllabus appended).

Ajitha P.P

Joint Registrar

To

1. Chairperson,Board of Studies in Music, 2. The Principals of all Affiliated Colleges  
Copy to: PS to VC/PA to PVC/ PA to Registrar/PA to CE/JCE I/JCE V/DoA/EX and EG  
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- The various branches of Manodharma Sangitha or creative music which is essential is being given prominence in the VI Semester and this enables the student to bring out the creative and aesthetic skills.
- The Practical papers and the oral tests at the end of each semester enables the students to emerge themselves as persons with great musical skills which will help them to become skilled artists in Vocal singing and Instrumental music.

**B. A. MUSIC PROGRAMME SYLLABUS**

**1<sup>ST</sup> SEMESTER**

**CORE COURSE – I COURSE CODE: MUS1B01**

**PRACTICAL – I – FOUNDATION COURSE – I**

Code	Hours/week	Credit	Semester
MUS1B01	6	5	1

**Course Outcome:**

- To learn the basic rudiments of music
- To know more about the basic factors such as Raga, Tala, Sruthi, Laya etc.
- To develop the skill to understand the different swaras & its combinations
- To understand the relation between Dhathu and Mathu

**Module – I – Swara Exercises:**

1. Sarali Varisas – any 10
2. Janta Varisas – any 3
3. Dattu Varisas – any 2

**Module - II -Sapta Tala Alankaras:**

1. Rendering of Sapta Tala Alankaras in the following five ragas
  - a. Sankarabharanam
  - b. Kalyani
  - c. Mohanam
  - d. Hamsadhvani
  - e. Abhogi

**Module - III -Abhyasa Gaanam:**

1. Geetham – 4
2. Jathiswaram – 1
3. Adi tala varnam – 3



UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Humanities- Scheme and Syllabus of MA Philosophy Programme for affiliated Colleges and SDE/Private Registration under CBCSS PG Regulations 2019 - incorporating Outcome Based Education- Implemented w.e.f 2020 Admission onwards - Subject to ratification by Academic Council -Orders Issued

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**G & A - IV - B**

U.O.No. 5771/2021/Admn

Dated, Calicut University.P.O, 30.05.2021

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- Read:-*1. U.O.No. 8768/2019/Admn dated 04.07.2019  
2. Minutes of the meeting of the Board of Studies in Philosophy SB held on 20.05.2021(Item No.2)  
3. Remarks of the Dean Faculty of Humanities, dated 26.05.2021.  
4. Orders of Vice Chancellor dated 27/05/2021.

ORDER

1. The scheme and syllabus of MA Philosophy Programme for affiliated Colleges and SDE/Private Registration under CBCSS PG Regulations 2019, has been implemented in the University w.e.f 2019 admission onwards, vide paper read (1) above.
2. The meeting of the Board of Studies in Philosophy (SB), held on 20.05.2021, vide paper read (2) above, has resolved to approve the revised Outcome Based Education (OBE) syllabus for MA programme in Philosophy (CBCSS) w.e.f. 2020 admission onwards.
3. The Dean, Faculty of Humanities, vide paper read (3) above, has approved the above resolution of the Board of Studies in Philosophy (SB) held on 20.05.2021.
4. Considering the urgency in implementation of the syllabus, sanction has been accorded by the Vice Chancellor, to implement the revised Outcome Based Education syllabus of MA Philosophy Programme (CBCSS PG 2019), subject to ratification by the Academic Council.
5. The revised scheme and syllabus of MA Philosophy Programme for affiliated Colleges and SDE/Private Registration under CBCSS PG Regulations 2019 incorporating Outcome Based Education (OBE) is therefore implemented with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
6. Orders are issued accordingly. (Syllabus appended)

Ajitha P.P

Joint Registrar

To

The Principal, Affiliated Colleges. 2. Director, SDE  
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## **SEMESTER I**

### **PHL1 C01: INDIAN EPISTEMOLOGY**

**(Core)**

#### **Brief Description of the Course:**

The course is intended to give a general idea about the epistemological approaches among the schools of Indian philosophy. It is also intended to differentiate the concepts peculiar to Indian philosophy in comparison to the Western. It examines the various features related to valid means of knowledge in Indian Philosophy.

#### **Course Outcome:**

1. To acquire a general awareness about the valid means of knowledge (pramana) recognized in Indian Epistemology.
2. To gain the capacity to analyze various means of knowing, and a provide a comparative account of means of knowledge accepted by various Indian schools.
3. To understand the significance of pramanas in everyday living.
4. To acquire the ability to evaluate the importance of Perception, Inference, Comparison and Verbal testimony in different contexts.

**Hours/ Week: 6**

**Credits: 5**

**Contact Hrs: 108**

<b>Unit I:</b>	<b>Carvaka System: Epistemology</b>	<b>15 Hrs</b>
	Perception	
<b>Unit II:</b>	<b>Jainism: Epistemology</b>	<b>15 Hrs</b>
	Immediate and Mediate- Syadvada	



UNIVERSITY OF CALICUT

**Abstract**

General and Academic- Faculty of Humanities- Syllabus of BA Philosophy Programme under CBCSS UG Regulations 2019 with effect from 2019 Admission onwards - Implemented- Orders Issued

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**G & A - IV - B**

U.O.No. 8767/2019/Admn

Dated, Calicut University.P.O, 04.07.2019

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*Read:-*1.UO. No. 4368/2019/Admn Dated: 23.03.2019

2.Minutes of the meeting of the Board of Studies in Philosophy(SB) held on 29.05.2019( Items no.1)

3.Minutes of the meeting of Faculty of Humanities held on 19.06.2019 (Item No.25)

ORDER

The Regulations for Choice Based Credit and Semester System for Under Graduate(UG) Curriculum-2019 (CBCSS UG Regulations 2019) for all UG Programmes under CBCSS-Regular and SDE/Private Registration with effect from 2019 Admission, has been implemented vide paper read first above.

The meeting of the Board of Studies in Philosophy(SB) held on 29.05.2019 vide Item no.1, has approved the Scheme and Syllabus of BA Philosophy Programme, restructured in tune with new CBCSS UG Regulation with effect from 2019 Admission onwards, vide paper read second above.

The Faculty of Humanities at its meeting held on 19.06.2019 has approved item No. 1 of the minutes of the meeting of the Board of Studies in Philosophy(SB) held on 29.05.2019, vide paper read third above.

Under these circumstances, considering the urgency, the Vice Chancellor has accorded sanction to implement the Scheme and Syllabus of BA Philosophy Programme in accordance with the new CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards, subject to ratification by the Academic Council.

Sanction is therefore accorded for implementing the Scheme and Syllabus of BA Philosophy Programme in accordance with CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards.

Orders are issued accordingly. ( Syllabus appended )

Biju George K

Assistant Registrar

To

1.The Principals of all Affiliated Colleges 2. Director, SDE

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SYLLABI OF CORE COURSES

**PHL1 B01- INTRODUCTION TO PHILOSOPHY**

**108 HRS. 6/WEEK**

**Total Credits: 5**

**Aim:** To invite the new learners to the world of philosophy and philosophers.

**Objectives:**

- i) To introduce the domain of philosophy to new learners.
- ii) To familiarize the learners with the origin and development of philosophical concepts in the East and West.
- iii) To create awareness about the basic themes and areas of philosophy.

**MODULE I: INTRODUCTION**

**23 HRS.**

- 1.1. Meaning, definition and characteristics of philosophy
  - a) Etymological definition
  - b) Nature and Scope of Philosophy
  - c) Philosophy and Science- Similarities and Differences.
- 1.2. Why study philosophy: Relevance and use of the discipline.
- 1.3. Origin and development of philosophical concepts (introductory aspects only)
  - a) In the West: Transition from mythology to cosmology and to humanism in ancient Greece.
  - b) In India: transition from Vedic religion to Upanishadic monism – from ritualism to philosophy.
- 1.4. Classification of philosophy
  - a) The geographical norm - Oriental and Occidental (Only a brief Study).
  - b) Classical Indian Philosophy
    - i. Characteristics
    - ii. Classification into orthodox and heterodox systems (Only Names of the Systems).
  - c) Western philosophy
    - i. Stages of development-Greek, Medieval and Modern –Characteristics and Differences

**MODULE II: METAPHYSICS**

**22 HRS.**

- 2.1. Etymology
- 2.2. Ontology and Cosmology
- 2.3. Ontological theories (Only basic postulates and representative thinkers are to be covered)
  - a) Dualism and Monism
  - b) Materialism
  - c) Idealism: Objective, Subjective and Absolute
  - d) Naturalism





UNIVERSITY OF CALICUT

Abstract

General and Academic - Faculty of Science - Modified Syllabus of BSc Physics Programme under CBCSS UG Regulations 2019 with effect from 2020 Admission onwards - Implemented- Orders Issued.

G & A - IV - J

U.O.No. 6321/2020/Admn

Dated, Calicut University.P.O, 07.07.2020

- Read:-*
1. U.O.No. 4368/2019/Admn dated 23.03.2019
  2. U.O.No. 18084/2019/Admn Dated 28.12.2019
  3. The item No.5 in the minutes of the meeting of the Board of Studies in Physics UG held on 05.03.2020
  4. Remarks of the Dean, Faculty of Science dtd 08.06.2020
  5. Order of the Vice Chancellor in the file even no. dtd 11.06.2020

ORDER

1. The Regulations for Choice Based Credit and Semester System for Under Graduate (UG) Curriculum-2019 (CBCSS UG Regulations 2019) for all UG Programmes under CBCSS-Regular and SDE/PrivateRegistration w.e.f. 2019 admission, has been implemented vide paper read first above and the same has been modified vide paper read second above.
2. The meeting of the Board of Studies in Physics (UG) held on 05/06/2020 has recommended the following modifications in the I and II semester of the Syllabus of B.Sc Physics Programme in tune with the new CBCSS UG - 2019 Regulations with effect from 2020 Admission, vide paper read third above.
  - Two units in semester I should be removed. The title of the course changed to Mechanics-I.
  - The syllabus of the unit, "Waves" in the syllabus of semester II is modified with another standard text book as book of study. The title of the course changed to Mechanics-II.
3. The Dean, Faculty of Science has approved the modified syllabus of BSc Physics programme in tune with the new CBCSS UG-2019 Regulations with effect from 2020 Admission onwards, vide paper read fourth above.
4. Considering the urgency of the matter, the Vice Chancellor has accorded sanction to implement the Scheme and Syllabus of B Sc Physics Programme in accordance with the new CBCSS UG Regulations 2019, in the University with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. The Modified Scheme and Syllabus of B Sc Physics Programme in accordance with CBCSS UG Regulations 2019, is therefore implemented in the University with effect from 2020 Admission onwards.
6. Orders are issued accordingly. (Syllabus appended).

Arsad M

Assistant Registrar

To

The Principals of all Affiliated Colleges  
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**Core Course I**  
**PHY1 B01: MECHANICS – I**  
**36 hours (Credit - 2)**

	<b>Course Outcome</b>	<b>PSO</b>	<b>CL</b>	<b>KC</b>	<b>Class Sessions Allotted</b>
C01	Understand and apply the basic concepts of Newtonian Mechanics to Physical Systems	PSO1	Ap	C,P	16
C02	Understand and apply the basic idea of work-energy theorem to physical systems	PSO1	Ap	C,P	8
C03	Understand and apply the rotational dynamics of rigid bodies	PSO1	Ap	C,P	12

**Unit I– Newton’s Laws**

**16 Hrs**

Newton’s First Law, Second Law and Third Law – Astronauts in space : Inertial systems and fictitious forces – Standards and units – Some applications of Newton’s laws – The astronauts’ tug of war, Freight train, Constraints, Block on string, The whirling block, The conical pendulum – The everyday forces of physics – Gravity and Weight; Gravitational force of a sphere; Turtle in an elevator; Gravitational field – Electrostatic force – Contact forces; Block and string; Dangling rope; Whirling rope; Pulleys; Tension and Atomic forces; Normal force; Friction; Block and wedge with friction; Viscosity – Linear restoring force; Spring and block : The equation for simple harmonic motion; Spring and gun : Illustration of initial conditions – Dynamics of a system of particles – The Bola – Centre of mass – Drum major’s baton – Centre of mass motion – Conservation of momentum – Spring Gun recoil

[Sections 2.1 to 2.5, 3.1 to 3.3 of An Introduction to Mechanics (1<sup>st</sup>Edn.) by Daniel Kleppner and Robert J. Kolenkow]

**Unit II – Work and Energy**

**8 Hrs**

Integrating the equation of motion in one dimension – Mass thrown upward in a uniform gravitational field; Solving the equation of simple harmonic motion – Work-energy theorem in one dimension – Vertical motion in an inverse square field – Integrating the equation of motion in several dimensions – Work-energy theorem – Conical pendulum; Escape velocity – Applying the work-energy theorem – Work done by a uniform force; Work done by a central force; Potential energy – Potential energy of a uniform force field; Potential energy of an inverse square force – What potential energy tells us about force – Stability – Energy diagrams – Small oscillations in a bound system – Molecular vibrations – Nonconservative forces – General law of conservation of energy – Power

[Sections 4.1 to 4.13 of An Introduction to Mechanics (1<sup>st</sup>Edn.) by Daniel Kleppner and Robert J. Kolenkow. The problems in chapter 5 should be discussed with this.]



UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Humanities- Scheme and Syllabus of BA Political Science Programme (CBCSS UG 2019) -Incorporating Outcome Based Education- Implemented w.e.f 2020 Admission onwards - Subject to ratification by Academic Council -Orders Issued

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**G & A - IV - B**

U.O.No. 5766/2021/Admn

Dated, Calicut University.P.O, 30.05.2021

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*Read:-*1.U.O.No. 8480/2019/Admn dated 30.06.20199

2. Minutes of the meeting of the Board of Studies in Political Science UG held on 25.05.2021(Item No.1)
3. Remarks of the Dean Faculty of Humanities, dated 28.05.2021.
4. Orders of Vice Chancellor dated 28/05/2021.

ORDER

1. The scheme and syllabus of BA Political Science Programme under CBCSS UG Regulations 2019 has been implemented in the University w.e.f 2019 admission onwards, vide paper read (1) above.
2. The meeting of the Board of Studies in Political Science UG, held on 25.05.2021, vide paper read (2) above, has approved Outcome Based Education (OBE) in the existing syllabus of BA Political Science Programme, under CBCSS PG Regulations 2019, without changing the content w.e.f 2020 admission onwards.
3. The Dean, Faculty of Humanities, vide paper read (3) above, has approved the above resolution of the Board of Studies in Political Science UG held on 25.05.2021.
4. Considering the urgency in implementation of the syllabus, sanction has been accorded by the Vice Chancellor to implement Outcome Based Education in the existing syllabus of BA Political Science Programme (CBCSS UG 2019), without changing the content with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. The scheme and syllabus of BA Political Science Programme under CBCSS UG Regulations 2019 incorporating Outcome Based Education (OBE) in the existing syllabus without changing the content, is therefore implemented with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
6. Orders are issued accordingly. (Syllabus appended)

Ajitha P.P

Joint Registrar

To

1. The Principal , Affiliated Colleges 2. The Director, SDE  
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## **Core Course I- POL1B01- Foundations of Political Science**

### **Course outcomes**

1. Understand meaning, scope and important approaches to the study of Political Science
2. Understand interconnection between State and Society, Elements of State and various theoretical perspectives about the origin and functioning of State.
3. Analyze input-output and structural-functional characteristics of State system.
4. Understand meaning and different kinds of Sovereignty and its nature in the context of globalization.
5. Understand the theory of Separation of Power.
6. Examine various structures of Government and their functions.

## **Core Course II- POL2B02- Concepts of Political Science**

### **Course outcomes**

1. Understand the nuances of Law, Equality, Liberty, Justice, Rights, Duties, power, influence, Authority, and Legitimacy.
2. Analyze the Political Culture, Political Socialization, Political Modernization and Political Development.
3. Examine the working of Democracy and different forms of Democracy.
4. Analyze the role of political parties, interest groups, pressure groups, public opinion and propaganda.
5. Understand Globalization, Environmentalism and Feminism.



UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Science - Syllabus of BSc Psychology Programme under CBCSS UG Regulations 2019 with effect from 2019 Admission onwards - Implemented- Orders Issued

**G & A - IV - J**

U.O.No. 8605/2019/Admn

Dated, Calicut University.P.O, 02.07.2019

- Read:-*1. U.O.No. 4368/2019/Admn dated 23.03.2019  
2. Item No. 5 in the minutes of the meeting of the Board of Studies in Psychology UG held on 25.03.2019  
3. Item No. 1.4 in the minutes of the meeting of Faculty of Science held on 27.06.2019

**ORDER**

The Regulations for Choice Based Credit and Semester System for Under Graduate (UG) Curriculum-2019 (CBCSS UG Regulations 2019) for all UG Programmes under CBCSS-Regular and SDE/Private Registration w.e.f. 2019 admission has been implemented vide paper read first above .

The meeting of Board of Studies in Psychology UG held on 25/03/2019 has approved the Syllabus of B Sc Psychology Programme in tune with the new CBCSS UG Regulations with effect from 2019 Admission onwards, vide paper read second above.

The Faculty of Science at its meeting held on 27/06/2019 has approved the minutes of the meeting of the Board of Studies in Psychology UG held on 25/03/2019, vide paper read third above.

Under these circumstances , considering the urgency, the Vice Chancellor has accorded sanction to implement the Scheme and Syllabus of B Sc Psychology Programme in accordance with new CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards, subject to ratification by the Academic Council.

Sanction is therefore accorded for implementing the Scheme and Syllabus of B Sc Psychology Programme in accordance with CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards.

Orders are issued accordingly. (Syllabus appended)

Biju George K

Assistant Registrar

To

The Principals of all Affiliated Colleges

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**B.SC PSYCHOLOGY****SEMESTER I****PSY1B01****Credits : 3****BASIC THEMES IN PSYCHOLOGY- I****64 hours****Objectives:**

- To generate interest in Psychology
- To make familiar the basic concept of the field of Psychology with an emphasis on applications of Psychology in everyday life.
- To understand the basics of various theories in Psychology
- To provide basic knowledge about systems and processes like attention, learning and Consciousness.

**Module 1 Introduction****16 hours**

Psychology: A working definition.

Origin of Psychology: Philosophical origins; Early Indian and Greek thoughts, major ideas of Descartes, Locke. Biological origins; Darwin, Genetics. Brief history of modern scientific psychology: structuralism, functionalism, behavioral, psychoanalytic, humanistic, cognitive perspectives, Gestalt psychology. Branches of Psychology, Scope of Psychology.

Methods of psychology: Observation-participant and non-participant observation, naturalistic observation; Interview methods-structured, semi structured and unstructured interviews; Surveys; case study; Questionnaires; Correlational studies; experimental method.

**Module 2 Attention and Perception****16 hours**

Attention: selective and sustained attention; Factors affecting attention; Phenomena associated with attention-span of attention, division of attention, distraction of attention.

Sensation and perception: Difference between sensation and perception: sensory threshold; absolute threshold; difference threshold; just noticeable differences; subliminal perception.

Perceiving forms, patterns and objects: perceptual set, feature analysis, bottom-up processing, top-down processing.

Perceptual organization; Gestalt principles, figure and ground segregation, phi-phenomenon.

Perceptual constancies: size, shape, brightness constancies.

Visual illusions; Theories of colour vision; Theories of auditory perception.

**Module 3 States of Consciousness****14 hours**

Nature of consciousness; Biological rhythms: circadian rhythms; Sleep and waking cycle: stages of sleep; functions of sleep; functions of REM sleep; sleep disorders

Dreams: psychodynamic, physiological and cognitive views.

Altered states of consciousness: Hypnosis; Meditation. Altering consciousness with drugs- Brief outline on psychoactive drugs.



UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Language and Literature - Scheme and Syllabus of BA Sanskrit Sahitya Programme under CBCSS UG Regulations 2019, w.e.f 2020 Admission onwards -Incorporating Outcome Based Education-Implemented Subject to ratification by Academic Council -Orders Issued

**G & A - IV - B**

U.O.No. 5425/2021/Admn

Dated, Calicut University.P.O, 20.05.2021

*Read:-*1.U.O.No. 14530/2019/Admn Dated ,15.10.2019

2.Minutes of the meeting of the BoS in Sanskrit UG held on 19/03/2021(Item No 3)

3.Minutes of the meeting of Faculty of Language and Literature held on 25/03/2021(Item No 28)

ORDER

1. The scheme and syllabus of BA Sanskrit Sahitya Programme in accordance with CBCSS UG Regulations 2019 has been implemented in the University , with effect from 2019 Admission onwards, vide paper read (1) above.
2. The meeting of the Board of Studies in Sanskrit UG held on 19/03/2021, vide paper read (2) above has approved Outcome Based Education(OBE) in the syllabus of BA Sanskrit Sahitya Programme , under CBCSS UG Regulations 2019, with some modifications w.e.f 2020 admission onwards.
3. The Faculty of Language and Literature has approved, vide paper read (3) above, the minutes of the meeting of the Board of Studies in Sanskrit UG held on 19/03/2021.
4. Considering the urgency in implementation of the syllabus, sanction has been accorded by the Vice Chancellor on 27-04-2021 to implement Outcome Based Education in the existing syllabus of BA Sanskrit Sahitya Programme , in tune with the new CBCSS UG Regulations 2019, with some modifications with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. The scheme and syllabus of BA Sanskrit Sahitya Programme under CBCSS UG Regulations 2019 incorporating Outcome Based Education (OBE) in the existing syllabus, with some modifications is therefore implemented with effect from 2020 Admission onwards, subject to ratification by the Academic Council. (modifications appended)
6. Orders are issued accordingly. (Syllabus appended)

Arsad M

Assistant Registrar

To

1.The Principals of all Affiliated Colleges 2. The Director, SDE

Copy to: PS to VC/PA to PVC/ PA to R/PA to CE/JCE I, II/, III, IV, VIII/EX & EG Sections/GA I F /CHMK Library/Information Centres /IQAC

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FIRST SEMESTER BA SANSKRIT SAHIYTA								
Semester	Course	Course Code	Title	Credit	Instructional Hours per week	Internal Mark	External Mark	Total Mark
I	Common	A01	Common English Course I					
		A02	Common English Course II					
		A07(1)	Additional Language Course I					
	Core	SKT1B 01	BHASHANUSASANAM (Methodology of Sanskrit Sahitya)	4	6	20	80	100
	Complementary	SKT1(2)C 01	Complementary Type I course I	4	6	20	80	100

**SKT 1B 01**

**BA DEGREE PROGRAMME SANSKRIT  
(CBCSS-UG)  
SEMESTAR-I CORE COURSE -I**

**॥ भाषानुशासनम् ॥**

(METHODOLOGY OF SANSKRIT SAHIYTA)  
(2020 Admission onwards)

**Texts: Sidharupam, Amarakosam, Sriramodantam**

**Credits: 4**

**Total Instructional hours: 108**

**Instructional Hours /week : 6**

**Answer should be written in Sanskrit using Devanagari script**

**Course Outcome: -**

- Understand the traditional methodology of learning Sanskrit language
- Attain compitance in the basic structure of Sanskrit language
- Attain the power of memorizing.
- Comprehend the vast vocabulary of Sanskrit language.
- Evaluate the linguistic peculiarities of Sanskrit.
- Apply the principles of Sanskrit grammar.
- Apply the grammatical situations through the study of poetry.
- Critically analyse the linguistic components in ancient and modern literature.





**UNIVERSITY OF CALICUT**

**Abstract**

General and Academic - Faculty of Science - Scheme and Syllabus of BSc Statistics Programme under CBCSS UG Regulations 2019 with effect from 2019 Admission onwards - Implemented- Orders Issued

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**G & A - IV - J**

U.O.No. 8618/2019/Admn

Dated, Calicut University.P.O, 02.07.2019

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*Read:-*1. U.O.No. 4368/2019/Admn dated 23.03.2019

2. Item No. 1 of the minutes of the meeting of the Board of Studies in Statistics UG held on 15.05.2019

3. Item No.1.24 of the minutes of the meeting of Faculty of Science held on 27.06.2019

**ORDER**

The Regulations for Choice Based Credit and Semester System for Under Graduate (UG) Curriculum-2019 (CBCSS UG Regulations 2019) for all UG Programmes under CBCSS-Regular and SDE/Private Registration w.e.f. 2019 admission has been implemented vide paper read first above .

The meeting of Board of Studies in Statistics UG held on 15/05/2019 has approved the Syllabus of B Sc Statistics Programme in tune with the new CBCSS UG Regulation with effect from 2019 Admission onwards, vide paper read second above.

The Faculty of Science at its meeting held on 27/06/2019 has approved the minutes of the meeting of the Board of Studies in Statistics UG held on 15/05/2019, vide paper read third above.

Under these circumstances , considering the urgency, the Vice Chancellor has accorded sanction to implement the Scheme and Syllabus of B Sc Statistics Programme in accordance with new CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards, subject to ratification by the Academic Council.

Sanction is therefore accorded for implementing the Scheme and Syllabus of B Sc Statistics Programme in accordance with CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards.

Orders are issued accordingly. (Syllabus appended)

Biju George K

Assistant Registrar

To

1.The Principals of all Affiliated Colleges 2. Director, SDE

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## STA1B01: OFFICIAL STATISTICS AND PROBABILITY

Objective:

1. To summarize the data in a diagrammatic and graphical way, obtain descriptive statistics and make possible & appropriate interpretations
2. To understand various approaches to probability & compute probabilities.

**Module 1:** Statistical organizations in India-MOSPI; CSO, NSSO, DES; Roles functions and activities of CSO, NSSO and DES; Measures of central tendency – Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, Mode, Percentiles, Quartiles; Measures of dispersion- Variance, Standard deviation, Mean deviation, Quartile deviation, Coefficient of variation; moments, skewness, Kurtosis. 20 hours

**Module 2:** Fitting of straight line, parabola, exponential, polynomial, (least square method), correlation-Karl Pearson's Correlation coefficient, Rank Correlation-Spearman's rank correlation co-efficient, Partial Correlation, Multiple Correlation, Scatter diagram, regression, two regression lines, regression coefficients. 17 hours.

**Module 3:** Experiment, Non- random and Random experiments, Sample space, event, classical definition of probability, statistical regularity, field, sigma field, axiomatic definition of probability and simple properties, addition theorem (two and three events), conditional probability of two events, multiplication theorem, independence of events-pair wise and mutual, Bayes theorem. 25 hours

**Module 4:** Random variable-discrete and continuous, probability mass function (pmf) and probability density function (pdf)-properties and examples, Cumulative Distribution function and its properties, change of variable (univariate case). 10 hours

### References

1. V. K. Rohatgi, An Introduction to Probability Theory and Mathematical Statistics, Wiley Eastern.
2. S.C.Gupta and V. K. Kapoor, Fundamentals of Mathematical Statistics, Sultan Chand and Sons
3. A.M. Mood, F.A. Graybill and D C Bose, Introduction to Theory of Statistics, McGraw Hill
4. John E Freund, Mathematical Statistics (6th edn), Pearson Edn, NewDelhi
5. Statistical system in India (CSO), 1995.



**UNIVERSITY OF CALICUT**

**Abstract**

General and Academic - Faculty of Language & Literature - Scheme and Syllabus of BA Tamil Language and Literature Programme w.e.f 2020 Admission onwards -Incorporating Outcome Based Education- Implemented Subject to ratification by Academic Council -Orders Issued.

**G & A - IV - B**

U.O.No. 5140/2021/Admn

Dated, Calicut University.P.O, 07.05.2021

- Read:-*1. U.O.No. 9043/2019/Admn Dated, 09/07/2019.  
2. Minutes of the meeting of the Board of Studies in Tamil (SB) held on 15/03/2021 (item No 1)  
3. Minutes of the meeting of Faculty of Language & Literature dtd. 25/03/2021(Item No 22)

**ORDER**

1. The scheme and syllabus of BA Tamil Language and Literature Programme under CBCSS UG Regulations 2019, w.e.f 2019 admission onwards has been implemented in the University, vide paper read (1) above.
2. The meeting of the Board of Studies in Tamil (SB) held on 15/03/2021, vide paper read (2) above, has resolved to approve Out Come Based Education(OBE) in the syllabus of BA Tamil Language and Literature Programme, under CBCSS UG Regulations 2019, without changing the content w.e.f 2020 admission onwards.
3. The meeting of the Faculty of Language and Literature held on 25/03/2021, vide paper read (3) above, approved the minutes of the meeting of the Board of Studies in Tamil(SB) held on 15/03/2021.
4. Considering the urgency in implementation of the syllabus, sanction has been accorded by the Vice Chancellor on 27-04-2021 to implement Outcome Based Education in the existing syllabus of BA Tamil Language and Literature Programme (CBCSS UG 2019) without changing the content, with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. The scheme and syllabus of BA Tamil Language and Literature Programme under CBCSS UG Regulations 2019 incorporating Outcome Based Education (OBE) in the existing syllabus, without changing the content, is therefore implemented with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
6. Orders are issued accordingly. (Syllabus appended)

Arsad M

Assistant Registrar

To

1. The Principals of all Affiliated Colleges 2. The Director, SDE  
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# Core Courses

## Semester – I

**Core Course – 1 Paper**  
**Code: TML 1B01**  
**Naveena Tamil-Urainadai**

## Course Outcomes

- CO 1 Identify different literary genres in modern Tamil Prose literature ie, Novel, Short Story, Biography and Critical Essays  
CO 2 Enhance the Knowledge of Critical Thinking on modern literature  
CO 3 Develop the knowledge in contemporary issues in to the literature  
CO 4 Ability to write reviews and criticism on contemporary literature for journals and magazines  
CO 5 Knowing many contemporary literary Personalities

## Module- I – vaazhkkai varalaaru.

Na. Pichamoorthi – Asokamiththiran

## Module- II - Novel

Punalum Manalum – A. Madhavan

## Module- III - Short story

- |                      |                  |
|----------------------|------------------|
| 1. Ragunathan        | Aanith thee      |
| 2. Krishnan Nambi    | Sattai           |
| 3. Ki. Rajanarayanan | Naarkkali        |
| 4. Sundara ramasamy  | Pallam           |
| 5. Asokamiththiran   | - Pulik kalaigan |

## Module- IV - Ilakkiyak Katturaigal

1. Yeriyum panikkaadu



**UNIVERSITY OF CALICUT**

**Abstract**

General and Academic - Faculty of Language & Literature - Scheme and Syllabus of MA Tamil Language and Literature Programme w.e.f 2020 Admission onwards -Incorporating Outcome Based Education- Implemented Subject to ratification by Academic Council -Orders Issued.

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**G & A - IV - B**

U.O.No. 5193/2021/Admn

Dated, Calicut University.P.O, 10.05.2021

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- Read:-*1. U.O.No. 8922/2019/Admn Dated, 06/07/2019.  
2. Minutes of the meeting of the Board of Studies in Tamil (SB) held on 15/03/2021 (item No 3)  
3. Minutes of the meeting of Faculty of Language & Literature dtd. 25/03/2021 (Item No 22)

**ORDER**

1. The scheme and syllabus of MA Tamil Language and Literature Programme under CBCSS PG Regulations 2019, w.e.f 2019 admission onwards has been implemented in the University, vide paper read (1) above.
2. The meeting of the Board of Studies in Tamil (SB) held on 15/03/2021, vide paper read (2) above, has resolved to approve Out Come Based Education(OBE) in the syllabus of MA Tamil Language and Literature Programme, under CBCSS PG Regulations 2019, without changing the content w.e.f 2020 admission onwards.
3. The meeting of the Faculty of Language and Literature held on 25/03/2021, vide paper read (3) above, approved the minutes of the meeting of the Board of Studies in Tamil(SB) held on 15/03/2021.
4. Considering the urgency in implementation of the syllabus, sanction has been accorded by the Vice Chancellor on 27-04-2021 to implement Outcome Based Education in the existing syllabus of MA Tamil Language and Literature Programme (CBCSS PG 2019) without changing the content, with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. The scheme and syllabus of MA Tamil Language and Literature Programme under CBCSS PG Regulations 2019 incorporating Outcome Based Education (OBE) in the existing syllabus, without changing the content, is therefore implemented with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
6. Orders are issued accordingly. (Syllabus appended)

Arsad M

Assistant Registrar

To

The Principals of all Affiliated Colleges  
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**SEMESTER I**  
**IKKALA ILAKKIYAM**  
**TML 1C 01**

**Course Outcomes**

- CO1 Familiarise with Tamil modern literary trends, writers, books and literary journals
- CO2 Understand the Themes and Forms of Tamil Modern literature ie., Poetry, Stories Novels, Drama and Prose.
- CO3 Develop Critical thinking on Contemporary issues and modern literary themes
- CO4 Understand various literary Trends and Movements its impact in modern Tamil Literature ie, Dalitism, Feminism, subaltern.
- CO5 Develop skill to writing articles in journals and magazines
- CO 6 Analyse themes and forms Tamil modern literature.

**Unit 1 Kavithai - Marabuk Kavithai**

- 1.Kavimani , **Theentamaip Pey** Malarum Maliyum Parinilayam, Chennai pp. 166-69
- 2.Sa. Thu. Su. Yogi **Puthu Varutam** Thamizhk Kumari, Santhiya Pathippakam, Chennai, p.37.
- 3.Aa. Seenivasa Raghavan **Moontru Marukkal** Vellaipparavai, Mercury Puththaka company, Coimbatore pp.18-20
- 4.Kannadasan **Bharathi**, Kannadasan Kavithaikal 7th Vol, Vanathi Pathippakam Chennai, pp.187-190
- 5.Ma. Periya Sami Thooran , **Pirarththanai**, Thamizh Yappu Marabu Pavalarkal, Sahithya Akademi, Chennai. P.75
- 6.Mee.Pa. Somasundaram **Nizhalkal**, Ibid p. 90
- 7.Mutiyarasan, **Manath Thoymai** , Ibid 93



UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Science - Syllabus of BSc Zoology Programme under CBCSS UG Regulations 2019 with effect from 2019 Admission onwards - Implemented- Orders Issued

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**G & A - IV - J**

U.O.No. 9202/2019/Admn

Dated, Calicut University.P.O, 12.07.2019

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*Read:-*1) U.O No. 4368/2019/Admn dated 23.03.2019

2) Item No.1 in the minutes of the meeting of the Board of Studies in Zoology UG held on 25.06.2019

3) Item No. I.12 in the minutes of the meeting of Faculty of Science held on 27.06.2019

ORDER

The Regulations for Choice Based Credit and Semester System for Under Graduate (UG) Curriculum-2019 (CBCSS UG Regulations 2019) for all UG Programmes under CBCSS-Regular and SDE/Private Registration w.e.f. 2019 admission has been implemented vide paper read first above.

The meeting of Board of Studies in Zoology UG held on 25.06.2019 has approved the Scheme and Syllabus of BSc Zoology Programme in tune with the new CBCSS UG Regulations with effect from 2019 Admission onwards, vide paper read second above.

The Faculty of Science at its meeting held on 27.06.2019 has approved the minutes of the meeting of the Board of Studies Zoology UG held on 25.06.2019, vide paper read third above.

Under these circumstances, considering the urgency, the Vice Chancellor has accorded sanction to implement the Scheme and Syllabus of BSc Zoology Programme in accordance with the new CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards, subject to ratification by the Academic Council.

The Scheme and Syllabus of BSc Zoology Programme in accordance with CBCSS UG Regulations 2019 is therefore implemented in the University with effect from 2019 Admission onwards.

Orders are issued accordingly. (Syllabus appended).

Biju George K

Assistant Registrar

To

The Principals of all Affiliated Colleges

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# FIRST SEMESTER B.Sc. ZOOLOGY PROGRAMME

ZOOLOGY CORE COURSE- I [Theory]

## ANIMAL DIVERSITY: NON-CHORDATA PART- I

Code: ZOL1B01T

[DIVERSITY, ADAPTATIONS AND FUNCTIONAL ANATOMY OF PROTOZOANS AND ACOELOMATE AND PSEUDOCOELOMATE NON-CHORDATES]

**[36 hours] [2 hours per week] [2 Credits]**

### COURSE OUTCOMES (COs)

COs	Course Outcome Statements
CO1	Describe the principles of classification and nomenclature (5 hrs)
CO2	Explain the five kingdom classification of living organisms (1 hr)
CO3	Understand the concepts of classification of animals (4 hrs)
CO4	Explain the classification with examples and characteristic features of kingdom Protista and describe the morphology and structural organization of <i>Paramecium</i> (6 hrs)
CO5	Describe the characteristic features of subkingdom Mesozoa (1 hr)
CO6	Explain the classification of phylum Porifera and elucidate the salient features of each class (3 hrs)
CO7	Describe the characteristic features of phylum Cnidaria and Ctenophora, illustrate the classification of phylum Cnidaria down to classes and explain the structural organization of <i>Obelia</i> (8 hrs)
CO8	Explain the salient features of phylum Platyhelminthes and illustrate its classification down to classes (3 hrs)
CO9	Explain the characteristic features and classification of super-phylum Aschelminthes and phylum Nematoda (3 hrs)
CO10	Elucidate the characters of Pseudocoelomate minor phyla Rotifera and Gastrotricha (2 hrs)

### Question paper pattern for external examination

[Module 1-4: Short answer 5x2=10 marks, Paragraph 3x5=15 marks, Essay 1x10= 10 marks  
Module 5-10: Short answer 7x2=14 marks, Paragraph 4x5=20 marks, Essay 1x10=10 marks]

## Section A. CONCEPTS OF CLASSIFICATION OF ORGANISMS

### MODULE 1. Principles of classification and nomenclature (5 hrs)

Systematics: natural and classical. Nomenclature: Binomial and Trinomial nomenclature; International rules of Zoological nomenclature (brief account); Mention modern trends in systematics: Chemotaxonomy, Serotaxonomy, Cytotaxonomy, Evolutionary taxonomy, Numerical taxonomy (Phenetics), Cladistics (Phylogenetics), Molecular systematics, DNA barcoding.

**[Short answers/paragraphs/Essays]**

### MODULE 2. Five kingdom classification of living organisms (1 hr)

Mention Cavalier-smith's eight kingdom classification also.

**[Short answers/Paragraphs]**

### MODULE 3. Concepts of classification of animals (4 hrs)

Classification based on number of cells, tissue or organ system level of organization, development of germ layers, development of symmetry, development of coelom, segmentation, homology and analogy of organs and their origin, development of mouth and digestive tract (brief account).

**[Short answers/Paragraphs]**





UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Science - Syllabus of BSc Electronics Programme (LRP) for affiliated colleges, w.e.f 2020 Admission onwards -Incorporating Outcome Based Education- Implemented - Subject to ratification by Academic Council -Orders Issued

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**G & A - IV - J**

U.O.No. 5716/2021/Admn

Dated, Calicut University.P.O, 29.05.2021

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- Read:-*1. U.O. No. 10290/2020/Admn, Dated 05.11.2020.  
2. Email dated 04.05.2021 from the Chairperson, Board of Studies in Electronics.  
3. Remarks of the Dean, Faculty of Science, Dated 26.05.2021.  
4. Orders of the Vice Chancellor in the file of even no, Dated 28.05.2021.

ORDER

1. The modified Scheme and Syllabus of B.Sc Electronics Programme (LRP Pattern), in accordance with CBCSS UG Regulations 2019, was implemented in the University with effect from 2019 Admission onwards, vide paper read (1) above.
2. Vide paper read (2) above, the Chairperson, Board of Studies in Electronics, forwarded the scheme and syllabus of B.Sc Electronics Programme (LRP Pattern), incorporating Outcome Based Education (OBE) in the existing syllabus, without changing the content in accordance with CBCSS UG Regulations 2019, with effect from 2020 Admission onwards, after circulating among the members of the Board, as per Clause (34) of Chapter 3 of Calicut University First Statutes (CUFS)1976.
3. The scheme and syllabus of B.Sc Electronics Programme (LRP Pattern), incorporating Outcome Based Education (OBE), has been approved by the Dean, Faculty of Science, vide paper read (3) above and by the Vice Chancellor, subject to ratification by the Academic Council, vide paper read (4) above.
4. The Scheme and Syllabus of B.Sc Electronics Programme (LRP Pattern) under CBCSS UG Regulations 2019 incorporating Outcome Based Education (OBE) in the existing syllabus, without changing the content is therefore implemented with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. Orders are issued accordingly.
6. U.O. No. 10290/2020/Admn dated, 05.11.2020 stands modified to this extent. (Modified syllabus appended)

Arsad M

Assistant Registrar

To

The Principals of all Affiliated Colleges  
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