

**ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE - 27
GUIDELINES, LIST AND SYLLABUS OF OPEN ELECTIVES FOR
UNDER GRADUATE STUDENTS OFFERED UNDER CHOICE BASED CREDIT SYSTEM (CBCS)**



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General guidelines for open electives (UG courses) under CBCS

- Undergraduate students who have enrolled for the programme in the academic year 2015-2016 and subsequent batches come under CBCS
- Students will have to select open electives in the fourth semester along with their Major papers
- B.A. and B.Sc. Students will have to choose 3 open electives of 30 hours each from a pool of elective papers offered under Electives 1, 2 and 3 respectively
- B.Com. and Professional courses (B.C.A., B.S.W., B.A. Visual Communications, B.Voc.) will have to choose 2 open electives of 30 hours each from a pool of elective papers offered under Electives 1 and 2
- Means of evaluation and attendance requirements for open electives is same as the other major papers
- Registration of open electives to be done online. **Online registration will begin on 04th November 2017 in between 10-11 am.**
- Selection of electives is on first come first serve basis
- For registration log in to sjcblr.co.in/KnowledgePro/StudentLogin.do using your User name and Password.
- Click on CBCS Open elective
- List of open electives under each section will appear with the number of seats available
- Select the Open electives of your choice from the pool provided
- If you are not sure of your options, cancel and reselect the electives of your choice
- Once you have submitted your options, the selected electives will be displayed on your screen
- Options once submitted cannot be changed under any circumstances

**LIST OF OPEN ELECTIVES OFFERED BY VARIOUS DEPARTMENTS FOR
UNDER GRADUATE STUDENTS**

Sl. No.		DEPARTMENT	CODE	TITLE OF THE <u>OPEN ELECTIVE</u> (OE)	Total No. of Seats available for each OE	
1	PHYSICAL SCIENCES	PHYSICS	PHOE 4116	1. The Universe and Me	65	
			PHOE 4216	2. Logic and Its Application in the Ascent of Physics	65	
			PHOE 4316	3. Wonders of Physics	65	
2		MATHEMATICS	MAOE 4116	Quantitative Methods For Competitive Examinations	325	
3		ELECTRONICS	ELOE 4116	Number Systems and Logic Circuits	130	
4		COMPUTERSCIENCE	C SOE 4116	Web Development	195	
5		STATISTICS	STOE 4116	Descriptive Statistics	65	
6		NATURAL SCIENCES	CHEMISTRY	CHOE 4116	1.Cosmetic Chemistry	130
				CHOE 4216	2.Industrial and Material Chemistry	65
				CHOE 4316	3.Chemistry of Food Production	130
			7	BOTANY	BOOE 4116	Applied Botany
	8		ZOOLOGY	ZOOE 4116	A Journey into the Animal world and Human life	195
	9		ENV. SCIENCE	ENVOE 4116	Environment and Health	40
	10		MICROBIOLOGY	MBOE 4116	Microbial Diseases: Causes, Prevention and Cure	65
	11		BIOTECHNOLOGY	BTOE 4116	Biotechnology Now and Beyond	65
12	SOCIAL SCIENCES	HISTORY	HISOE 4116	Tourism in Karnataka	65	
		ECONOMICS	ECOE 4116	1.Insurace Services	65	
			ECOE 4216	2.Agro-Food Marketing	65	
			ECOE 4316	3.Economics of Rural Development and Agriculture	65	
			ECOE 4416	4.Basic Microeconomics For Non-Economist	65	
			ECOE 4516	5. Globalization and the individual	65	
		14	POLITICAL SCIENCE	PSOE 4116	1.Civil Services	66
				PSOE 4216	2. Ideas about Development: Introduction to select Readings	65
				PSOE 4316	3. Electoral politics and processes in India	65
		15	SOCIOLOGY	SOOE 4116	Characteristics of Indian Society	130
		16	INDUSTRIAL RELATIONS	IROE 4116	Human Resource Management	65
		17	ENGLISH	ENGOE 4116	Readings in Popular Culture	65
			COMMUNICATIVE ENGLISH	CEOE 4116	Public Speaking as Story-Telling	65
		18	JOURNALISM	JOUE 4116	Journalism as Story-Telling	65
		19	PSYCHOLOGY	PSYOE 4116	Foundations to Psychology and Counseling	65
20	PROFESSIONAL COURSES	BCA	BCAOE 4116	Basic Programming Skills	65	
		BVC	BVCOE 4116	1.Reading Images	65	
			BVCOE 4216	2.Film Appreciation	65	
		22	BSW	SWOE 4116	Basic Human Rights Approach	130
		23	B.Com	BCOMOE 4116	1. Basic Accounting	260
BCOMOE 4216	2.Marketing Management			260		
			BCOMOE 4316	3. Fundamentals of Stock Markets	130	

NOTE: Maximum number of students in each section is 65.

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE - 27
CHOICE BASED CREDIT SYSTEM (CBCS)
LIST OF OPEN ELECTIVES TO BE OPTED BY PHYSICAL SCIENCE STUDENTS

Open electives to be opted by PHYSICAL SCIENCE (PCM, PEM, PMC, MEC AND EMS) students are as follows:

ELECTIVE 1	CHEMISTRY	CHOE 4116	1.Cosmetic Chemistry
		CHOE 4216	2.Industrial and Material Chemistry
		CHOE 4316	3.Chemistry of Food Production
	BOTANY	BOOE 4116	Applied Botany
	ZOOLOGY	ZOOE 4116	A Journey into the Animal world and Human life
	ENV. SCIENCE	ENVOE 4116	Environment and Health
	MICROBIOLOGY	MBOE 4116	Microbial Diseases: Causes, Prevention and Cure
	BIOTECHNOLOGY	BTOE 4116	Biotechnology Now and Beyond
NOTE : PCM STUDENTS CANNOT OPT CHEMISTRY FROM ELECTIVE 1			
ELECTIVE 2	HISTORY	HISOE 4116	Tourism in Karnataka
	ECONOMICS	ECOE 4116	1.Insurance Services
		ECOE 4216	2.Agro-Food Marketing
		ECOE 4316	3.Economics of Rural Development and Agriculture
		ECOE 4416	4.Basic Microeconomics For Non-Economist
		ECOE 4516	5. Globalization and the individual
	POLITICAL SCIENCE	PSOE 4116	1.Civil Services
		PSOE 4216	2. Ideas about Development: Introduction to select Readings
		PSOE 4316	3. Electoral politics and processes in India
	SOCIOLOGY	SOOE 4116	Characteristics of Indian Society
	INDUSTRIAL RELATIONS	IROE 4116	Human Resource Management
	ENGLISH	ENGOE 4116	Readings in Popular Culture
	COMMUNICATIVE ENGLISH	CEOE 4116	Public Speaking as Story-Telling
JOURNALISM	JOUOE 4116	Journalism as Story-Telling	
PSYCHOLOGY	PSYOE 4116	Foundations to Psychology and Counseling	
NOTE : EMS STUDENTS CANNOT OPT ECONOMICS FROM ELECTIVE 2			
ELECTIVE 3	BCA	BCAOE 4116	Basic Programming Skills
	BVC	BVCOE 4116	1.Reading Images
		BVCOE 4216	2.Film Appreciation
	BSW	SWOE 4116	Basic Human Rights Approach
	B.Com	BCOMOE 4116	1. Basic Accounting
		BCOMOE 4216	2.Marketing Management
BCOMOE 4316		3. Fundamentals of Stock Markets	
NOTE : PMC AND MEC STUDENTS CANNOT OPT OPEN ELECTIVES FROM BCA COURSE			

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE - 27
CHOICE BASED CREDIT SYSTEM (CBCS)
LIST OF OPEN ELECTIVES TO BE OPTED BY NATURAL SCIENCE STUDENTS

Open electives to be opted by <u>NATURAL SCIENCE</u> (CBZ, CEB/Z, MCB/Z, CBBT/CZBT) students are as follows:			
ELECTIVE 1	PHYSICS	PHOE 4116	1. The Universe and Me
		PHOE 4216	2. Logic and Its Application in the Ascent of Physics
		PHOE 4316	3. Wonders of Physics
	MATHEMATICS	MAOE 4116	Quantitative Methods For Competitive Examinations
	ELECTRONICS	ELOE 4116	Number Systems and Logic Circuits
	COMPUTERSCIENCE	CSOE 4116	Web Development
	STATISTICS	STOE 4116	Descriptive Statistics
ELECTIVE 2	HISTORY	HISOE 4116	Tourism in Karnataka
	ECONOMICS	ECOE 4116	1. Insurance Services
		ECOE 4216	2. Agro-Food Marketing
		ECOE 4316	3. Economics of Rural Development and Agriculture
		ECOE 4416	4. Basic Microeconomics For Non-Economist
		ECOE 4516	5. Globalization and the individual
	POLITICAL SCIENCE	PSOE 4116	1. Civil Services
		PSOE 4216	2. Ideas about Development: Introduction to select Readings
		PSOE 4316	3. Electoral politics and processes in India
	SOCIOLOGY	SOOE 4116	Characteristics of Indian Society
	INDUSTRIAL RELATIONS	IROE 4116	Human Resource Management
	ENGLISH	ENGOE 4116	Readings in Popular Culture
	COMMUNICATIVE ENGLISH	CEOE 4116	Public Speaking as Story-Telling
	JOURNALISM	JOUOE 4116	Journalism as Story-Telling
PSYCHOLOGY	PSYOE 4116	Foundations to Psychology and Counseling	
ELECTIVE 3	BCA	BCAOE 4116	1. Basic Programming Skills
	BVC	BVCOE 4116	1. Reading Images
		BVCOE 4216	2. Film Appreciation
	BSW	SWOE 4116	Basic Human Rights Approach
	B.Com	BCOMOE 4116	1. Basic Accounting
		BCOMOE 4216	2. Marketing Management
BCOMOE 4316		3. Fundamentals of Stock Markets	

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE - 27
CHOICE BASED CREDIT SYSTEM (CBCS)
LIST OF OPEN ELECTIVES TO BE OPTED BY SOCIAL SCIENCE STUDENTS

Open electives to be opted by SOCIAL SCIENCE (HEP, IES, EPS,CPE AND EJP) students are as follows:

ELECTIVE 1	CHEMISTRY	CHOE 4116	1.Cosmetic Chemistry
		CHOE 4216	2.Industrial and Material Chemistry
		CHOE 4316	3.Chemistry of Food Production
	BOTANY	BOOE 4116	Applied Botany
	ZOOLOGY	ZOOE 4116	A Journey into the Animal world and Human life
	ENV. SCIENCE	ENVOE 4116	Environment and Health
	MICROBIOLOGY	MBOE 4116	Microbial Diseases: Causes, Prevention and Cure
BIOTECHNOLOGY	BTOE 4116	Biotechnology Now and Beyond	
ELECTIVE 2	PHYSICS	PHOE 4116	1. The Universe and Me
		PHOE 4216	2. Logic and Its Application in the Ascent of Physics
		PHOE 4316	3. Wonders of Physics
	MATHEMATICS	MAOE 4116	Quantitative Methods For Competitive Examinations
	ELECTRONICS	ELOE 4116	Number Systems and Logic Circuits
	COMPUTERSCIENCE	CSOE 4116	Web Development
	STATISTICS	STOE 4116	Descriptive Statistics
ELECTIVE 3	BCA	BCAOE 4116	Basic Programming Skills
	BVC	BVCOE 4116	1.Reading Images
		BVCOE 4216	2.Film Appreciation
	BSW	SWOE 4116	Basic Human Rights Approach
	B.Com	BCOMOE 4116	1. Basic Accounting
		BCOMOE 4216	2.Marketing Management
		BCOMOE 4316	3. Fundamentals of Stock Markets

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE - 27
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LIST OF OPEN ELECTIVES TO BE OPTED BY VOCATIONAL COURSE STUDENTS

Open electives to be opted by VOCATIONAL COURSE (BCA, BSW, BVC, AND B.COM) students are as follows:			
ELECTIVE 1	CHEMISTRY	CHOE 4116	1.Cosmetic Chemistry
		CHOE 4216	2.Industrial and Material Chemistry
		CHOE 4316	3.Chemistry of Food Production
	BOTANY	BOOE 4116	Applied Botany
	ZOOLOGY	ZOOE 4116	A Journey into the Animal world and Human life
	ENV. SCIENCE	ENVOE 4116	Environment and Health
	MICROBIOLOGY	MBOE 4116	Microbial Diseases: Causes, Prevention and Cure
	BIOTECHNOLOGY	BTOE 4116	Biotechnology Now and Beyond
	PHYSICS	PHOE 4116	1. The Universe and Me
		PHOE 4216	2. Logic and Its Application in the Ascent of Physics
		PHOE 4316	3. Wonders of Physics
	MATHEMATICS	MAOE 4116	Quantitative Methods For Competitive Examinations
	ELECTRONICS	ELOE 4116	Number Systems and Logic Circuits
	COMPUTERSCIENCE	C SOE 4116	Web Development
STATISTICS	STOE 4116	Descriptive Statistics	
BCA STUDENTS CANNOT OPT OPEN ELECTIVES OFFERED BY COMPUTER SCIENCE DEPARTMENT			
ELECTIVE 2	HISTORY	HISOE 4116	Tourism in Karnataka
	ECONOMICS	ECOE 4116	1.Insurance Services
		ECOE 4216	2.Agro-Food Marketing
		ECOE 4316	3.Economics of Rural Development and Agriculture
		ECOE 4416	4.Basic Microeconomics For Non-Economist
		ECOE 4516	5. Globalization and the individual
	POLITICAL SCIENCE	PSOE 4116	1.Civil Services
		PSOE 4216	2. Ideas about Development: Introduction to select Readings
		PSOE 4316	3. Electoral politics and processes in India
	SOCIOLOGY	SOOE 4116	Characteristics of Indian Society
	INDUSTRIAL RELATIONS	IROE 4116	Human Resource Management
	ENGLISH	ENGOE 4116	Readings in Popular Culture
	COMMUNICATIVE ENGLISH	CEOE 4116	Public Speaking as Story-Telling
	JOURNALISM	JOUE 4116	Journalism as Story-Telling
	PSYCHOLOGY	PSYOE 4116	Foundation to Psychology and Counseling
	BCA	BCAOE 4116	Basic Programming Skills
	BVC	BVCOE 4116	1.Reading Images
		BVCOE 4216	2.Film Appreciation
	BSW	SWOE 4116	Basic Human Rights Approach
	B.Com	BCOMOE 4116	1. Basic Accounting
		BCOMOE 4216	2.Marketing Management
		BCOMOE 4316	3. Fundamentals of Stock Markets
	NOTE : STUDENTS CANNOT OPT ELECTIVES FROM THE HOST DEPARTMENT		
EX. B.Com students cannot opt electives from Commerce Department			

DEPARTMENT	CODE	TITLE OF THE <u>OPEN ELECTIVE</u> (OE)	Total No. of Seats available for each OE
PHYSICS	PHOE 4116	1. The Universe and Me	65
	PHOE 4216	2. Logic and Its Application in the Ascent of Physics	65
	PHOE 4316	3. Wonders of Physics	65

PHOE 4116 -The Universe and Me

Learning outcome

1. What distinguishes the methods of science from other human activities?
2. To understand and appreciate the universe which eventually helps us to think about who you are and where you and the human race are going?
3. What astronomy can tell us about our place in the universe? (How was the universe created? Where did the earth, moon and the sun come from? What are the stars and the planets made of? How do we fit in? What is our place in the universe?)

Syllabus

Total hours : 30

1. Introduction to Astronomy

The changing perceptions of the universe – Geocentric, heliocentric and the present day perceptions of the universe. Solar System – Solar system and its origin. Sun and Sun like stars – properties, stellar classification, the birth, death and resurrection of the stars. Galaxies – The Milky Way Galaxy, classification of galaxies. **(15 hours)**

2. Windows to the Universe

Electromagnetic spectrum – Optical, radio, UV, micro, IR, X-ray and gamma ray astronomy. Visible windows – Optical astronomy, optical telescopes, functions of telescopes. Invisible windows – Radio-astronomy, radio-telescope, advantages and disadvantages. **(10 hours)**

3. Cosmology

The Origin and Evolution of the Universe – The Expanding Universe, Hubble's Law, Age of the Universe, Big Bang Theory, CMBR, Dark energy and the accelerating universe. **(5 hours)**

Reference: 1. Universe, Roger A. Freedman and William J. Kaufmann III, W. H. Freeman and company, New York
2. Astronomy: The Evolving Universe, Michael Zeilik, Cambridge University Press.

PHOE 4216 -Logic and Its Application in the Ascent of Physics

Learning outcome

- 1) Help the students getting over the fear of asking questions and arguing.
- 2) Act as a primer for the students that will help them in understanding concepts taught in their respective courses.
- 3) Help the students understand scientific method.

Syllabus

Total hours: 30

Logic: Deductive, Inductive logic, Identification of an argument, Identifying fallacies, Definition of definition, Symbolic Logic, Scientific Method, Application to Physics, Economics, Language

Epistemology of Physics: Ideas from Rene Descartes, Francis Bacon, David Hume, Karl Popper, Berkeley, Ludwig Wittgenstein, Influence of these philosophers on Newton, Maxwell and Einstein **(10 hours)**

Mathematical Primer: Ideas of functions, calculus, statistical analysis, introduction to Python, writing Python codes to plot a function, statistics and numerical analysis etc. **(10 hours)**

Observations, Making Models: Devising a simple experiment (either from Physics, Astrophysics, Economics. Internet resources could be used) taking measurements, understanding sources of errors, making a model, making a prediction **(5 hours)**

Developing a demonstration experiment **(5 hours)**

Resource Books:

- 1) Introduction to Logic- Irving Copi, Pearsons (14th Edition), 2013
- 2) Theory of Knowledge: A Contemporary Introduction to the theory of Knowledge – Robert Audi, Routledge Publishers, 2005
- 3) Introduction to Computation and Programming Using Python – Gutttag John, PHI, 2014
- 4) Data Reduction and Error Analysis for Physical Sciences – Philip Bevington and Keith Robinson, McGraw-Hill Higher Education, 2005

PHOE 4316 -Wonders of Physics

Learning outcome

- i) To induce a sense of wonder and awe among the students when they look at the world around them.
- ii) To rationalize the thoughts and build a bridge between the science that they study in the course and its application in their daily life.

Total hours: 30

Syllabus

1. Science: A wonder of reality

Introduction, Aristotelian science, Science - tracing back its origin, what is physics, why physics, the three fundamental entities of reality – Space, time and matter.

(3 hours)

2. Space

a) Universe by design: From backyard to the big bang – A brief history of cosmology; world-views in science and cosmological models, twentieth century cosmology, more recent developments in cosmology, tools for explaining the universe, the big bang model, fine-tuned universe, the law of cause and effect, A pale blue dot but a privileged planet.

b) Frontiers of Astronomy: From dawn to dusk, exploring the night sky, recent discoveries in the solar system, other worlds, cosmological distance and measurements, death of massive stars – supernova and black holes

(8 hours)

3. Time

a) A Physical quantity: The International System (SI) of measurement for physical quantities, The unit of time, Measuring time with atomic clocks, Determining position with the aid of precise time measurements, Shortest and longest time-span, Time constants and periods, Time constants and oscillation periods in physics, Time in astronomy, Time in biological systems, Other aspects of physical time.

b) An anthropological quantity: Introduction, Attributes of time, application of information science in interpreting time, the five levels of time, eternity, ideas of eternity among people, sense of eternity among people.

(5 hours)

3. Matter

Properties of matter, Matter and energy, wave particle duality, logic and physics, materialism, the equation of life and death, Erwin Schrödinger and the birth of information science.

(6 hours)

4. Love of Physics

Powers of ten, from nucleus to deep space; measurements, uncertainties and stars, bodies in motion, the rainbow, harmonies of strings and winds, wonders of electricity, mysteries of magnetism, energy conservation, physical phenomena in living systems, inventions that conquered the world, discoveries that revolutionized the world, physics in our daily life.

(8 hours)

DEPARTMENT	CODE	TITLE OF THE <u>OPEN ELECTIVE</u> (OE)	Total No. of Seats available for OE
MATHEMATICS	MAOE 4116	Quantitative Methods for Competitive Examinations	325

MAOE 4116 Quantitative Methods for Competitive Examinations

Learning outcome

Students acquire the skills and tactics to tackle quantitative aptitude questions.

Students learn logical reasoning. The fundamentals in relevant fields (which students have learnt and probably forgotten) are revisited and strengthened.

The course aim to make the student competent and confident in facing quantitative aptitude questions.

Syllabus

Total hours: 30

1. **Play with numbers : ARITHMETIC** **(7 hours)**
Decimals - Exponents and Roots – Fractions – Integers – Percent – Ratio - Real Numbers

2. **Earth Measures: GEOMETRY** **(8 hours)**
Circles - Lines and Angles – Polygons – Quadrilaterals - Three-Dimensional Figures - Triangles

3. **I connect arithmetic and geometry: ALGEBRA** **(8 hours)**
I am the unknown between the known
Applications - Coordinate Geometry – Functions - Graphs of Functions - Operations with Algebraic Expressions - Rules of Exponents - Solving Linear Equations - Solving Linear Inequalities - Solving Quadratic Equations

4. **I have huge information, can you interpret it : DATA ANALYSIS** **(7 hours)**
Counting Methods - Data Interpretation Examples - Distributions of Data - Random Variables and Probability Distributions - Graphical Methods for Describing Data - Numerical Methods for Describing Data – Probability

BIBLIOGRAPHY

1. BARRON'S NEW GRE, 19TH EDITION.
2. HIGHER ALGEBRA BY H S HALL AND S R KNIGHT
3. GEOMETRY BY S L LONEY

DEPARTMENT	CODE	TITLE OF THE <u>OPEN ELECTIVE</u> (OE)	Total No. of Seats available for OE
ELECTRONICS	ELOE 4116	Number Systems and Logic Circuits	130

ELOE 4116 Number Systems and Logic Circuits

Syllabus

Total hours: 30

1: Number systems:

Decimal, binary, octal and hexadecimal and their inter conversion. digital codes, BCD (8421) code, Gray, Excess 3, ASCII and bar codes, arithmetic operation in binary and hexadecimal, BCD addition, Sign magnitude conversion, 1's and 2's complements subtraction, signed number arithmetic addition **(10 hours)**

2: Logic gates and Boolean algebra (10 hours)

Positive and negative logic, basic logic gates, AND, OR and NOT gates, Boolean algebra-laws and theorems, NAND and NOR gates, De-Morgan's theorems, XOR and XNOR gates- symbol, truth table, realization using basic gates, NAND and NOR gates as universal gates. Simplification of logic expression using Boolean algebra **(10 hours)**

3: Sequential logic circuits (10 hours)

Flip- flops – Basic RS latch (NAND and NOR latches), Clocked RS flip-flops, D flip- flop and JK flip- flop, T flip-flop, edge triggering and level triggering. Edge triggered Master-slave JK flip-flop, Clear & Preset inputs. IC 7473 and IC 7476. Shift registers– 4 bit serial in serial out, serial in parallel out, parallel in serial out, parallel in parallel out.

Counters: Asynchronous counters, logic diagram, truth table and timing diagrams of 3 bit ripple counter, 4 bit up-down counter, mod n counters, 4-bit synchronous counter, decade counter. Memory devices **(10 hours)**

Books Recommended:

1. Digital fundamentals: T.L.Floyd , Universal Book Stall,8th edition,2005.
2. Modern digital electronics R.P Jain –TMH publication, 3rd edition, 2003.

Reference books:

1. Fundamentals of digital circuits: A Anand Kumar, PHI, 3rd edition,2004.
2. Digital logic and computer design: M. Morris Mano – PHI4th edition,2002
3. Digital principles and application: Malvino and Leach –TMH 5th edition, 2000

DEPARTMENT	CODE	TITLE OF THE <u>OPEN ELECTIVE</u> (OE)	Total No. of Seats available for OE
COMPUTERSCIENCE	CSOE 4116	Web Development	195

CSOE 4116 Web Development

Syllabus

Total hours: 30

Learning outcome

On successful completion of the course the students will be able to do the following:

- To provide an in-depth training for web development skills.
- To understand and develop I web pages independently.
- To understand the methods of debugging and correcting anomalies.
- To provide a proper foundation for learning other tools of web development.

1. **Internet Basics:** Introduction to internet and its applications, E-mail, telnet, FTP, E-commerce, video conferencing, e-business. Internet service providers, domain name server, internet address, World Wide Web and its evolution, uniform resource locator (URL), browsers – internet explorer, netscape navigator etc. search engine, web saver – apache, proxy server, HTTP protocols **(10 hours)**

2. **Web Designing Technologies:** Introduction to HTML, ASP, JSP, Java scripts, VB scripts, HTML/DHTML – file creation, HTML tags, titles footers, text formatting, forms, images, lists, tables, linking documents, front page editing, frame sets, order list, un-order list, special characters **(10 hours)**

3. **Java Script** Introduction to Java script, writing java script into HTML, Building of Java Script Syntax Data types of variables, arrays, operators, expressions, programming construct of conditional checking, loop ends functions, dialogue boxes **(5 hours)**

4. **CSS:** Understanding the importance of CSS, Types: inline, internal and external with examples. **(5 hours)**

REFERENCE BOOKS

1. E. Balaguruswamy, Programming with JAVA, A Primer, 2nd Edition., TMH 2. (1999), (Chapter 2 – 16) 3. KenArnold & James Gosling, The Java Programming Language, Addison – Wesley, (1998) 4. Patrick Naughton & Herbert Schildt,

2. JAVA 2: The Complete Reference, 3rd Edition, TMH, (1999). 5. Internet 6-in-1 by Kraynak and Habraken, Prentice Hall of India Pvt. Ltd., New Delhi 6. Internet for Everyone by Alexis Leon and Mathews Leon; Vikas Publishing House Pvt. Ltd., New Delhi 7. HTML – 4 for World Wide Web by Castro Addison Wesley (Singapore) Pvt. Ltd., New Delhi 8. Principles of Web Designing Joel Sklar, Web Warrior Series Available with Vikas Publishing House Pvt. Ltd., New Delhi

DEPARTMENT	CODE	TITLE OF THE <u>OPEN ELECTIVE (OE)</u>	Total No. of Seats available for OE
STATISTICS	STOE 4116	Descriptive Statistics	65

STOE 4116 Descriptive Statistics

Learning outcome

This paper introduces to basic statistical methods and their applications in different fields and also it deals with the techniques used in describing and summarizing important characteristics of statistical data along with different methods of data collection, introduction to probability, univariate and bivariate data analysis

Syllabus

Total hours: 30

Unit-1: Basic Statistics:

1. Statistics: Meaning and role as a decision making science **(1 hour)**
2. Basic concepts: Population, Sample, Types of data, Types of scales - nominal, ordinal, ratio and interval. Variables and attributes, discrete and continuous variables. **(2 hours)**
3. Representation of data: frequency tables and pivot tables. stem and leaf diagram, bar plots, histogram, pie chart, scatter plots **(3 hours)**

Unit-2: Probability theory:

1. Probability: Random experiment, trial, sample space, events, classical, definition of probability. Properties of probability. Additive law, Multiplicative law and their applications **(3 hours)**

Unit-3: Data collection methods:

1. Sample surveys: Sources of data collection, Principal steps in a sample survey, sampling and Non-sampling error, Requisites of a good questionnaire. Drafting of questionnaires and schedules and their pre-test. Pilot surveys. **(3 hours)**
2. Basic concepts: Census and Sampling, Types of Sampling, non – probability sampling, Subjective and Judgement sampling. Probability sampling, Simple random sampling, stratified random sampling, systematic sampling and cluster sampling (only definitions and their applications) and procedures of selecting a sample by above techniques. **(3 hours)**

Unit-4: Univariate data analysis:

1. Central Tendency: Measures of Central tendency, Arithmetic mean, weighted mean, combined mean, median, mode, Geometric Mean, Harmonic Mean and their applications **(4 hours)**
2. Dispersion: Measures of Dispersion, range, quartile deviation, mean deviation, standard deviation and their applications. Relative Measures of Dispersion, Coefficient of Variation and their applications **(4 hours)**

Unit-5: Bivariate data analysis:

1. Correlation: measures of correlation, Scatter diagram, Karl Pearson's correlation coefficient, Spearman's Rank correlation coefficient and their properties with their applications **(3 hours)**
2. Regression: Simple linear regression analysis, regression coefficients and their properties, Interpretations of slope and intercept. Fitting straight line. Coefficient of determination. Meaning of Multiple regression analysis **(4 hours)**

References:

1. Goon A.M., Gupta M.K., Das Gupta.B. (1991): Fundamentals of Statistics Vol.I, World Press, Calcutta.
2. Gupta, S.C., and V.K.Kapoor (2001): Fundamentals of Mathematical Statistics: Sultan Chand & Sons.
3. Rajmohan: A Textbook of Statistics Vol -1, Benaka Books
4. Descriptive Statistics (Statistical Methods), Arun Kumar and Alka Chaudary, Krishna Publication
5. Quantitative techniques, C.R. Kothari, Vikas Publishing House PVT Ltd
6. Survey Sampling, Parimal Mukhopadhyay, Narosa Publishing House
7. Mukhopadhyay. P (1996). Sample surveys. Calcutta Publishing House.
8. Statistical methods (combined volume), N G Das, Tata McGraw-Hill Education
9. Fundamentals of Statistics Volume 1, A M Gun, B Dasgupta, M K Gupta, World Press

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
CHEMISTRY	CHOE 4116	1.Cosmetic Chemistry	130
	CHOE 4216	2.Industrial and Material Chemistry	65
	CHOE 4316	3.Chemistry of Food Production	130

CHOE 4116 Cosmetic Chemistry

Syllabus

Total hours: 30

Learning Outcome:

This course aims to provide broad-based science knowledge with an emphasis on the personal care sector, such as cosmetic raw materials, formulations, quality control, cosmetic regulations etc.

1 – Introduction to Cosmetics and Perfumes (1 Hour)

2 – Hair care products (5 Hours)

Shampoos – principal constituents – thickeners and foam stabilizers – perfumes – preservatives- conditioning agents – antidandruff shampoos.

Hair cream – composition – hair dyes – types – constituents - dye removals

3 – Skin care Products (4 Hours)

Skin cleansers – classifications – cold cream – cleansing milk – moisturizers – hand and body lotions – sun screen lotions – constituents

4 – Colour Cosmetics (5 Hours)

Lipstick – constituents- manufacturing methods- lip glosses- nail polish- formulation- manufacture- face powder- constitution

5 – Dental Products (5 Hours)

Oil care product - product categories – tooth paste – tooth powder – oral rinses – mouth washes – comparison between synthetic and herbal oral product

6 – Bath Preparations (5 Hours)

Bath powders – soap and detergents – constituents of soaps and detergents – manufacture –mechanism of cleansing action

7 - Essential oils and their importance in Cosmetic Industry (5 Hours)

Eugenol, geraniol, sandalwood oil, Eucalyptus oil, rose oil, 2-phenyl ethyl alcohol, jasmine, civetone, muscone.

REFERENCES

- *Modern Technology of Cosmetics*, Asia Pacific Press Inc, New Delhi, 2004
- E. Stocchi: *Industrial Chemistry*, Vol 1, Ellis Horwood Ltd. UK
- P.C Jain, M. Jain: *Engineering Chemistry*, Dhanpat Rai & Sons, Delhi
- Sharma B.K & Gaur H, *Industrial Chemistry*, Goel Publishing House, Meerut (1996)

CHOE 4216 Industrial and Material Chemistry

Syllabus

Total hours: 30

Learning Outcome:

Students are exposed to do industrial chemistry and material science. This brings awareness in students to the happenings in the industry and leads to job opportunities. The students are also exposed to recent advanced fields like nanotechnology.

INDUSTRIAL MATERIALS: (7 Hours)

Refractories: Properties, classification, determination of PCE values. Abrasives: Classification and application. Glass: Composition, raw materials, varieties of glass-borosilicates, optical and safety glass-composition and uses. Cement: Raw materials, setting of cement.

PETROLEUM AND PETROCHEMICALS: (4 Hours)

Origin of petroleum, composition, octane number, petrol, diesel, kerosene, naphtha, lubricants, LPG, synthetic petrol, petrochemicals.

NANOTECHNOLOGY: (8 Hours)

Definition, nano domain, properties of nanomaterial

Applications of nanomaterials (i) Medicine-Gold sol (ii) Photo Voltaic cell (in solar cells) (iii) Self-cleaning glasses-ZnO, SnO, TiO (iv) Antibacterial materials-AgO (v) Catalytic material (vi) Super capacitors

WATER CHEMISTRY: (3 Hours)

Principles and applications of aqueous chemistry, water quality, parameters and standards, hardness of water. Use of zeolites in removal of hardness of water

FUELS: (5 Hours)

Characteristics, Calorific value, coal varieties, reserves, coke, gaseous fuels, biofuels.

EXPLOSIVES AND PROPELLANTS: (3 Hours)

Explosives- Classification and applications

Propellants-Characteristics, classification and application.

REFERENCES:

- E. Stocchi: *Industrial Chemistry*, Vol 1, Ellis Horwood Ltd. UK
- Sharma B.K & Gaur H, *Industrial Chemistry*, Goel Publishing House, Meerut (1996)

CHOE 4316 Chemistry of Food Production

Syllabus

Total hours: 30

HEALTH AND NUTRITION

CHEMISTRY OF FOOD PRODUCTION

(8 Hours)

Chemical composition of soil. Factors affecting the productivity of soil. Plant nutrients- nonmineral, primary, secondary and micronutrients and their natural sources. Nitrogen fixation. Chemical fertilizers: manufacture, advantages and disadvantages of ammonium sulphate, calcium ammonium nitrate, urea and calcium superphosphate. Micronutrient deficiencies and their remedies. Plant growth enhancers. Pesticides and their classification. Insecticides- harmful effects of DDT and parathion. Herbicides: Selective and non selective herbicides with examples.

CHEMISTRY OF NUTRITION

(12 Hours)

Nutrition and nutrients, classes of nutrients, general nutritional needs of human beings, ways of assessing the nutritional status of a human being. Malnutrition, nutrient requirements-recommendations-Dietary allowance per day (RDA), caloric data of nutrients and calculation of caloric value of food. Basal metabolic rate (BMR). Factors affecting BMR. Function, daily needs, food sources of carbohydrates, proteins and fats; problems associated with excess and deficiency of carbohydrates, proteins and fats. Minerals - functions of nutrient minerals, health issues associated with deficiency of Ca, Iodine, Fe, K and Na in human body. Vitamins- sources and deficiency effects of vitamins A, D, E, F, K, B complex and C.

FOOD ADDITIVES

(5 Hours)

Definition and classification, preservatives, antimicrobial & antioxidant preservatives, food color, pH control in food, sequestrates, flavor enhancers, sweeteners, anticaking agents, stabilizers and thickeners, surface active agents (emulsifiers), Roles of polyhydric alcohols as food additives.

FOOD ADULTERATION

(3 Hours)

Adulterants- definition, examples of adulterants in food and beverages, harmful effects of food adulteration. Detection of adulteration in edible oil, milk, beverages, spices and pulses.

CHEMISTRY OF COOKING

(2 Hours)

Leavening of bread, fermentation

REFERENCES:

1. Chemistry: Impact on Society, M.D. Joesten, D.O. Johnston, J.T. Netterville and J.L. Wood, Saunders College Publishing, 1988.
2. Chemistry of food and nutrition, H.C. Sherman, Agrobios (India) 2009
3. Pesticides in the modern world: Risks and benefits, Margarita Stoitcheva, InTech, 2011
4. E Source: Chemgeneration. Com/milestones/food-and -agriculture.html

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
BOTANY	BOOE 4116	Applied Botany	195

BOOE 4116 Applied Botany

Syllabus

Total hours: 30

1. Ethnobotany

Introduction, scope and objectives

Plants used as: a) Food b) medicine c) intoxicants and beverages d) Resins and oils

(8 hours)

2. Biofertilizers

General account about the microbes used as biofertilizer

Organic farming – Green manuring and organic fertilizers, recycling of biodegradable municipal, agricultural and Industrial wastes – biocompost making methods, types and method of vermicomposting – field Application.

(7 hours)

3. Mushroom Cultivation

Introduction: History and introduction; Nutritional and medicinal value of edible mushrooms; Poisonous mushrooms.

Cultivation: Equipments for mushroom spawn, Laboratory, culture room, spawn production mushroom farm layout and mushroom shed; Oyster mushroom cultivation –substrate, spawning, pre-treatment of substrate. Maintenance of mushroom. Cultivation of white button mushroom – spawn, composting, spawning, harvesting.

Processing and Storage: short term and long term storage.

(15 hours)

Suggested Readings

1. Dubey, R.C., 2005 A Text book of Biotechnology S.Chand& Co, New Delhi.
2. Kumaresan, V. 2005, Biotechnology, Saras Publications, New Delhi.
3. John JothiPrakash, E. 2004. Outlines of Plant Biotechnology.Emkay -Publication, New Delhi.
4. Sathe, T.V. 2004 Vermiculture and Organic Farming. Daya publishers.
5. SubhaRao, N.S. 2000, Soil Microbiology, Oxford & IBH Publishers, New _Delhi.
6. Vayas,S.C, Vayas, S. and Modi, H.A. 1998 Bio-fertilizers and organic _Farming AktaPrakashan, Nadiad 55

Mushroom Cultivation:

- a. Bahl, N. 1988. Handbook of Mushroom.Oxford and IBH Publishing Co. Pvt. Ltd, New Delhi 37
- b. Krishnamoorthy, A.S., Marimuthu, T. and Nakkern, S. 2005 Mushroom Biotechnology .TNAU Press, Coimbatore, India
- c. Harander, S. 1991. Mushrooms.The Art of Cultivation Sterling Publishers.
- d. Tripathi, D.P. 2005. Mushroom Cultivation.Oxford and IBH Publishing Co. Pvt. Ltd, New Delhi.

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
ZOOLOGY	ZOOE 4116	A Journey into the Animal world and Human life	195

ZOOE 4116 A Journey into the Animal world and Human life

Syllabus

Total hours: 30

UNIT 1: INTRODUCTION TO ANIMAL WORLD (5 Hours)

Brief Introduction to the Animal diversity, Body form, Adaptations and Economic importance of the following phyla in brief:

1.1 INVERTEBRATES (3Hours)

Protozoa – Plasmodium
 Porifera - Sponges
 Coelenterata - Corals
 Platyhelminthes - Tapeworm
 Aschelminthes – Round worm
 Annelida - Earthworm
 Arthropoda - Insects
 Mollusca – Bivalves
 Echinodermata – Starfish

1.2 VERTEBRATES (2 Hours)

Pisces - Fishes
 Amphibia - Frog
 Reptiles – Identification of poisonous and non-poisonous Snakes
 Aves – Adaptations and migration
 Mammals – Selected examples

UNIT 2: HUMAN BODY (ANATOMY AND PHYSIOLOGY) (5 Hours)

A brief description of the structure and functions of the following systems:

- 2.1 Digestive system
- 2.2 Respiratory system
- 2.3 Circulatory system
- 2.4 Excretory system and Reproductive system
- 2.5 Nervous system and Endocrine system

UNIT 3: PUBLIC HEALTH AND DISEASES (15 Hours)

- 3.1 Heart diseases – Hypertension, thrombosis (blocks), heart attack (angiogram, angioplasty and open heart surgery) (2Hours)
- 3.2 Diabetes mellitus – Causes and treatment (normal blood sugar level) (1 Hours)
- 3.3 Liver cirrhosis and Hepatitis – Types, causes and treatment (2 Hours)
- 3.4 Bronchitis, Allergy, tuberculosis (1 Hours)
- 3.5 Cancer – Types, causes and treatment (2Hours)
- 3.6 AIDS – HIV virus, mode of transmission, causes and preventive measures (2 Hours)

- 3.7 Genetic diseases – Introduction to genetic disorders and Positive and negative eugenics (2 Hours)
- 3.8 Vector borne diseases (1 Hour)
- 3.9 First-aid (1 Hour)
- 4.0 Blood grouping and transfusion (1 Hour)

UNIT – 4: ECONOMIC ZOOLOGY AND WILD LIFE (5 Hours)

- 4.1 A brief account of vermiculture, aquaculture, sericulture and apiculture (1 Hour)
- 4.2 Conservation of wild life – Sanctuaries, Zoos, National parks, Mega diverse countries, Biodiversity hotspots, Endangered species (1 Hour)
- 4.3 Endangered species – Features of a red data book (1 Hour)
- 4.4 Animal conflict (1 Hour)
- 4.5 Behavioural psychology of animals and anthropomorphism (1 Hour)

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
ENVIRONMENTAL SCIENCE	ENVOE 4116	Environment and Health	40

ENVOE 4116 Environment and Health

Syllabus

Total hours: 30

Learning outcome

- To understand the need for Environmental sanitation
- To acquire the knowledge of Non-communicable and Communicable diseases
- To acquire the knowledge of Nutrition and Dietetics
- To acquire the knowledge of Occupational health hazards

1.1 Dimensions of health- Physical, mental and social health; Spiritual health. Disease triangle. Health Justice

(5 hours)

2.1 Aero-allergens: Dust mites- Pollens

2.2 Water borne endemic disease: Fluorosis , Arsenic poisoning and Methemoglobinemia

2.3 Soil borne endemic disease: Melioidosis

2.4 Vector borne diseases: Plauge and Malaria; emerging diseases: Dengue, Chikungunya, Zika, Ebola, Swine Flu, Bird Flu, Severe Acute Respiratory Syndrome (SARS), *Middle East Respiratory Syndrome* (MERS); Zoonosis- Leptospirosis; Kyasanur forest disease (KFD) and Toxoplasmosis.

2.5 Drug safeties: Thalidomide Tragedy; Antibiotic stewardship; New Delhi *Antibiotic-Resistant superbug*.

2.6 Environmental Sanitation and Hygiene: Safe disposal of human excreta; Solid waste disposal; Sanitation value chain.

(15 hours)

3.0 Malnutrition: Vitamin deficiency diseases and Mineral deficiency diseases; Folic acid requirement during pregnancy; Food Safety- Adulterants and preservatives; Pesticide Toxicity: Endosulfan and DDT; Genetically Modified Food.

(5 hours)

4.0 Occupational health: Sick Building Syndrome; Noise and Radiation; Stress and Fatigue; Carpal tunnel syndrome (CTS) Methyl mercury and cerebral palsy; Synergistic effect; Cigarette smoking and pregnancy complications – Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003.

(5 hours)

References:

1. Bedi and Yashpal. 1971. Handbook of Hygiene and Public Health. Atma Ram & Sons, Delhi.
2. Park.k 2009.Park's Textbook of Preventive and Social Medicine, 20th Edition.Misc Publ.

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
MICROBIOLOGY	MBOE 4116	Microbial Diseases: Causes, Prevention and Cure	65

MBOE 4116 Microbial Diseases: Causes, Prevention and Cure

Syllabus

Total hours: 30

Learning outcome:

Microbes are tiny organisms, too tiny to see without a microscope, yet they are abundant on Earth. They live everywhere: in air, soil, rock, and water. Some live happily in searing heat, while others thrive in freezing cold. Some microbes need oxygen to live, but others do not. Though microscopic, one can't overemphasize the importance of microbiology. Society benefits from microorganisms in many ways. In contrary to those microorganisms also have harmed humans, animals, plants and so on, and disrupted society over the millennia. Microbial diseases undoubtedly played a major role.

This elective draws our relationship closer to microbes. This relationship involves not only the beneficial effects but also familiarize us with the harmful effects of certain microorganisms. Here we will bring to you the ways microbes affect our lives by causing diseases. We will also try and learn the measures to be taken to prevent the spread of microbial diseases and if affected to treat them.

- 1. Introduction to microbial biodiversity** – distribution, abundance, ecological niche and types. Definition of infection and disease.
Classification of infections; localized, generalized, endemic, epidemic, sporadic and pandemic. Classification of diseases as communicable and non communicable with examples. **(5 hours)**
- 2. Sources of infection:** - Air, humans, animals, insects, soil, water and food. **(3 hours)**
- 3. Methods of transmission of infection:-** Contact, inhalation, ingestion, inoculation, insects, congenital, iatrogenic and laboratory infections. **(2 hours)**
- 4. Causes prevention and treatment of infections /disease** **(10 hours)**
- 5. Hospital acquired infection, prevention and control (CDC)** **(2 hours)**
Disinfection: - types of disinfection procedures **(1 hour)**
Vaccines and Immunization schedule **(3 hours)**
Chemotherapy - Use and abuse **(4 hours)**

REFERENCES:

- Jacquelyn G.Black, (2008), Microbiology Principles and explorations, JohnWiley& sons Ltd.
- Prescott, Harley & Klein's,(2008), Microbiology, Mac Graw Hill Higher education.
- Ananthanarayan and Paniker; Text book of Microbiology (2006); 8th Edition; Orient Longman publication, Hyderabad.
- David Greenwood, Richard C.B. Slack and John. F. Peutherer; Medical Microbiology(2008), 7th Edition, Elsevier India Private Ltd., New Delhi.
- Jawetz, Melnick and Adelbergs; Medical Microbiology (2010); 25th Edition; McGraw Hill Companies, USA.

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
BIOTECHNOLOGY	BTOE 4116	Biotechnology Now and Beyond	65

BTOE 4116 Biotechnology Now and Beyond

Syllabus

Total hours: 30

Learning outcome:

The term 'Biotechnology' may sound futuristic. This paper deals with the introduction to Biotechnology that will interest student to understand the application of this field today. Biotechnology has a role in the daily life and there are concepts one needs to know about. The paper covers a clear introduction for these concepts in the first units. The content will help students understand genes, genetic diseases, drug reactions and genetically modified organisms.

Unit 1-The Cell:

(2 hours)

Cell theory: The basic unit of life, structure of a cell (general, plant and animal)-1 hr
General account of living cells-1 hr

Unit 2-DNA:

(2 hours)

Discovery of DNA as a genetic material-1 hr
Structure of DNA-1 hr

Unit 3- Genes and Genomes:

(2 hours)

Gene concept, concept of genomes-1 hr
Model organism and their genomes -1 hr

Unit 4- Applications of DNA studies:

(4 hours)

In Agriculture, Environment, Food and forensics- 1 hr each

Unit 5- Genetic Engineering and Cloning:

(4 hours)

Aim, scope and principles of genetic engineering-1 hr
GE Insulin-1 hr
Introduction to cloning –Example Dolly -2 hr

Unit 6- Bioinformatics:

(4 hours)

Databases-1 hr,
Sequencing-2 hr,
Human genome project-1 hr

Unit 7- Biotechnology in the media:

(2 hours)

Unit 8- Bioethics, Biosafety and IPR:

(2hours)

Social, Moral and Environmental ethics, Biosafety, Biosafety guidelines -1 hr
IPR and patent process -1 hr

Unit 9- Genetically Modified Crops:

(2 hours)

Introduction to BT cotton-1hr
Bt Cotton scenario in India-1hr

Unit 10 Pharmacovigilance:

(2 hours)

Pharmacovigilance in India-1 hr
Introduction to adverse drug reactions-1 hr

Unit 11- Genetic diseases:

(2hours)

Introduction to common genetic disorders-1 hr
Genetic counseling and diagnostics-1 hr

Unit 12-Stem Cells biology:

(2hours)

Introduction to stem cells-1 hr
Applications and ethical issues-1 hr

Reference –

1. Biotechnology Now and Beyond-(Contact Biotechnology department for copy of the reference book)

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
HISTORY	HISOE 4116	Tourism in Karnataka	65

HISOE 4116 Tourism in Karnataka

Syllabus

Total hours: 30

- | | |
|--|------------------|
| 1. Introduction – Meaning and nature of Tourism | (2 hours) |
| 2. Basic Components of Tourism | (3 hours) |
| 3. Types of Tourism | (3 hours) |
| 4. Basic Infrastructure | (3 hours) |
| 5. Supportive Services | (4 hours) |
| 6. Sustainable Tourism and its Importance's | (3 hours) |
| 7. Tourism and Karnataka: World Heritage Sites (Hampi, Pattadakal, Western Ghats) | (6 hours) |
| 8. Conservation of Cultural Heritage and Resources - Protection of Ancient Monuments | (6 hours) |

Books for study and reference:

1. G. S. Batra : Tourism in the 21st Century
2. A.K. Bhatia : International Tourism : Fundamentals and Practices
3. Jagmohan Negi : Tourism and Travel : Principles and Concepts
4. Ratandeeep Singh : Tourism Today, Volumes I, II and III. 6. Ram Acharya : Culture and Heritage of India.
5. Denis Foster : An Introduction to Travel and Tourism
6. B V Rao : Tourism.

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
ECONOMICS	ECO 4116	1. Insurance Services	65
	ECO 4216	2. Agro-Food Marketing	65
	ECO 4316	3. Economics of Rural Development and Agriculture	65
	ECO 4416	4. Basic Microeconomics For Non-Economist	65
	ECO 4516	5. Globalization and the individual	65

ECO 4116 Insurance Services

Syllabus

Total hours: 30

Course Objective: to provide an overview of the working of the insurance sector

MODULE 1

BASIC CONCEPTS

(5 hours)

Meaning of actuarial science - Concept of Risk. - Classification of Risks - Assessment of Risk Transfer of Risk - Insurance as tool to transfer of risk .The Concept of Insurance – Classification of Insurance Principles of Insurance -Basic, Economic, Legal, Financial and Actuarial.

MODULE 2

LIFE, HEALTH

(10 hours)

Purpose of Life Insurance - Plans -Term Plans, Traditional Plans, ULIP plans. Types of Claims under Life Insurance Policy - survival benefit, maturity claims, early death claims, death claims, Accident benefit and disability benefit claims, claims under critical illness settlement options. Health Insurance Insurance Products in India, Health Insurance Underwriting, Health Insurance policy forms and clauses. Group Insurance- Nature, scope, types,

MODULE 3

GENERAL INSURANCE

(10 hours)

Motor Insurance, Fire Insurance, Marine Insurance & Agricultural Insurance . Group Insurance– Nature and Type, Gratuity liability, Group - Superannuation Schemes- life insurance and general insurance.

MODULE 4

APPLICATIONS AND SCHEMES

(5 hours)

Applications - Underwriting and Acceptance - Proposal form and related documents - Documents for proof of age, Medical reports, special medical reports - underwriting of proposal. Policy Document: Policy document, policy conditions, duplicate policy, alteration, types of revivals including calculations. Premium: Premium calculation, Days of grace, Non-Forfeiture Options, Lapse and - Revival Schemes.

ECOE 4216 Agro-Food Marketing

Syllabus

Total hours: 30

Course Objective: to provide an over view of the marketing of agro produce

MODULE 1

AGRICULTURAL AND ECONOMIC DEVELOPMENT

(5 hours)

Role of Agriculture in Economic and Rural Development. Marketing of agricultural produce, status of agro-food industry, features of agro-food industry, marketing problems, marketing philosophy and process, market environment. Present status of food retail marketing system in India: Organized and Un-organized marketing system.

MODULE 2

ORGANIZED MARKETING SYSTEMS

(5 hours)

Formats of Organized Marketing systems- Discounters (Subhiksha, Reliance Fresh), the value-for-money store (Nilgiris, Big Bazaar, Cooperative Stores), the experience shop (Food world, Trinetra), the home delivery (Fabmart), super stores and wide reach stores (Reliance Fresh, Spencer, Food Mart), etc. E-marketing. Retailing and FDI: Retailer's efficiency and competitiveness, employment opportunities, franchising, cash and carry wholesale operations and strategic license agreements.

MODULE 3

UN-ORGANIZED MARKETING SYSTEM

(5 hours)

Formats of Un-organized Marketing System: Kirana Stores and Hawkers, viz. the road side hawkers, mobile retailers, including open format more organized outlets and small to medium food retail outlets.

MODULE 4

MARKETING INFRASTRUCTURE

(15 Hours)

Post-harvest Handling and Packaging, Grading Facilities, Transportation, Storage, Cold Storage and Refrigerated Containers/Vans, Processing and Value Addition, Telecommunication, Market Yards and Sub-yards, Investment Requirements, Schemes for Encouraging Private Investment Role of Information Technology and telecommunication in marketing of agricultural commodities, Market research, Market information service, electronic auctions (e-bay)

Books for reference

1. Armstrong Gary and Philip Kotler (2012), 'Marketing: An Introduction', 11th ed. Prentice Hall, Upper Saddle River.
2. Crawford (1997), 'Marketing and Agribusiness Texts', FAO. FAO (2009), 'Agribusiness Handbook: Food Retail'.
3. Kotler, P and Keller, KL. (2008). 'Marketing Management'. 13th ed. Upper Saddle River, New Jersey: Prentice Hall.
4. Peter J. Paul and Jerry Olson (2009), 'Consumer Behaviour and Marketing Strategy', 9th ed. McGraw-Hill, United States.

ECOE 4316 Economics of Rural Development and Agriculture

Syllabus

Total hours: 30

Course Objective: To provide an overview of rural economy

MODULE 1

INTRODUCTION TO RURAL DEVELOPMENT

(5 hours)

Meaning of Rural Development- Basic Elements of Development- Objectives of Development Strategies of Rural Development- Policies for Rural Development-Need for Rural Development policy-Rural Development under Five year Plans.

MODULE 2

EMPLOYMENT AND RURAL INDUSTRIES

(15 hours)

Rural Measures-Rural Income-Size, Growth and Occupational Structure of Rural Population Employment under employment and unemployment in rural areas. Sources of rural credit Policies for Rural Development. Types of Rural Development Programmes in India. Growth and Development of Rural Industries in India- Cottage and rural industries-Problems and perspectives. Rural Industrial during the planning period.

Module 3

INFRASTRUCTURE RURAL AGRICULTURE

(10 hours)

Agriculture and the Rural Economy of India-Planning for Village Industries. Technical changes in traditional agriculture. Rural Infrastructure-Rural Transport-Rural Electricity-Rural Education-Rural Housing-Rural Health, Sanitation, Water Supply

ECOE 4416 Basic Microeconomics for Non-Economist

Syllabus

Total hours: 30

Course objectives: to provide basic knowledge about the principles of individual economic behavior

MODULE I

BASIC BUILDING BLOCKS OF MICROECONOMIC THEORY

(10 Hours)

Scope of microeconomic theory- concept of 'choice' in microeconomic theory - idea of opportunity cost; absolute price and relative price – production possibility curve; positive and normative economics; market demand and supply curve – factors affecting demand and supply curve – market equilibrium; Government's intervention in the market- basic concept of elasticity.

MODULE II

CONSUMERS AND FIRMS: TWO PILLARS OF THE ECONOMY

(10 Hours)

Choice and preferences of consumers (demand side) – idea of budget line and indifference curve; equilibrium of the consumer; production decision by firms (supply side) – concept of cost and production – input choice decision of firm

MODULE III

IDEA OF MARKET IN MICROECONOMIC THEORY

(10 Hours)

Idea of market – different forms of market structure – Two extreme cases: perfectly competitive market; monopolistic market; different forms of monopoly: natural monopoly; various forms of price discrimination.

Books for Reference

Sen, A. (2007): Microeconomics: Theory and Application. Oxford University Press.

ECOE 4516 GLOBALIZATION AND THE INDIVIDUAL

Syllabus

Total hours: 30

Course Objectives:

- To describe the main issues, dynamics and debates surrounding globalization
- Synthesize knowledge of globalization with individual experiences

MODULE I: AN OVERVIEW OF GLOBALIZATION

(10hours)

Definition , global interdependency , causes and effects of globalization, developing countries, Uneven development, poverty and the market . Individual in a globalised economy-3 'Rs' - reaction, resistance and resilience.

MODULE II: GLOBALIZATION, TRADE, FINANCE AND LABOUR MARKETS

(10hours)

Trade agreements and the globalization- commodity markets – commodity chains -global value chain -MNCs , role of technology .Bretton woods - the rise of global finance. Changing geographical division of labor, product and process Outsourcing, the global worker

MODULE III: GLOBALSIATION, EDUCATION, HEALTH AND THE ENVIRONMENT

(10hours)

Education – growing international markets. Health- global determinants of health- Global environmental issues, urbanization.

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
POLITICAL SCIENCE	PSOE 4116	1.Civil Services	65
	PSOE 4216	2. Ideas about Development: Introduction to select Readings	65
	PSOE 4316	3. Electoral politics and processes in India	65

PSOE 4116 Civil Services

Syllabus

Total hours: 30

I Introduction

- Evolution of Civil Services
- Meaning of Civil Services
- Characteristics of Civil Services
- Functions of Civil services
- Importance of Civil Services in a Modern state

II Civil Services in India

- Classification of Civil Services
- Public Service commissions
- Recruitment to Civil services
- Generalist and Specialists

III Other Issues

- Discipline in Civil Services
- Constitutional provisions & Conditions of Civil Services
- Civil Service Ethics
- Making Civil Services a Career

SELECT REFERENCES:

1. Kumar Jwala- governance in Ancient Indian political system
2. S.R.Maheshwari- Public Administration in India
3. B.L.Fadia & Kuldeep Fadia- Public Administration (Administrative Theories & Practice)
4. S.L.Goel & Shalini Rajneesh- Public Personnel Administration
5. P.D.Sharma & B.M. Sharma-Indian Administration
6. T.S.R. Subramanian- Journey through Babudom and NetaLand

JOURNALS:

1. Mainstream
2. Seminar
3. Indian Journal of Public Administration
4. Economic & Political Weekly

PSOE 4216 Ideas about Development: Introduction to select Readings

Syllabus

Total hours: 30

Course Description

This course is intended to introduce under graduate students to the diverse perspectives on development. A course like this cannot do justice to the enormous scholarship in the field. There are areas that will not be covered here, inevitably. The objective is to deal with some of the fundamental debates, concepts, ideas and thinkers to give students an overview and assist them to take this reading forward. Above all, the intention is to make you a critical observer and reader of Development.

Students will be expected to do all the readings: There will be a few lectures; students will be required to answer questions based on specific readings, prepare commentaries and engage in discussion.

Students will be required to photocopy reading material at their own expense.

Regular class attendance is assumed. Absentees will find it difficult to fulfill the objectives of this course. Classroom dynamics and methodologies will feature in the tests and exams.

Course Details

Brief History: Overview Samuel Huntington and Myron Wiener, Understanding Development; Almond and Powell- The concept of Political Development.

Glossary of terms/jargon, concepts, ideas and thinkers

Select Readings:

1.)Wolfgang Sachs, 2.)E F Schumacher, 3.) Gunnar Myrdal, 4.)AG Frank, 5.)Samir Amin, 6.)Claude Alvares , 7.)Ashish Nandy, 8.)Rajni Kothari, 9.)Vandana Shiva, 10.)P Sainath, 11.)Jean Dreze and Amartya Sen, 12.)MK Gandhi, 13.)Naomi Klein, 14.) Immanuel Wallerstein, 15.)Martha Nussbaum, 16.)Jagdish Bhagwati 17.) J.C Kumarappa

ELECTORAL POLITICS AND PROCESSES IN INDIA

Syllabus

Total hours: 30

Course Description: The envisioned objective of the course is twofold: One, to familiarize the students with the dynamics of politics in India; and Second, to enable them to understand the functioning of institutional factors (such as constitutional bodies, political parties, rules and procedures etc) that mould the political domain in India.

I. Political Parties and the Party System in India:

Meaning of Political Party; Political Parties in India; Features of Indian Party System; Classification of Political Parties

(10 Hours)

II. Elections and the Electoral System:

Meaning of Election; Types of elections; Election Commission of India; Representation of Peoples Act, 1950 ; A thumbnail sketch of elections held in India.

(10 Hours)

III. The Changing Nature of the Indian State:

The nature of political power in India; Changing dimensions of the Indian State (Ideological, Developmental and Welfare)

(10 Hours)

Essential Readings

Brass, P.R. (1999). *The Politics of India Since Independence*. New Delhi: Cambridge University Press and Foundation Books.

Chatterjee, P. (ed.) (2004). *State and Politics in India*. New Delhi: Oxford University Press.

D.D. Basu. *Introduction to the Constitution of India*.

Hasan, Z. (ed.) (2002). *Parties and Party Politics in India*. New Delhi: Oxford University Press.

Jaffrelot, Christophe (2011). *Religion, Caste and Politics in India*. New York: Columbia University Press

Jayal, N.G. and Mehta, P.B. (eds.) (2010) *The Oxford Companion to Politics in India*. New Delhi: Oxford University Press.

Kothari, R. (2002) 'The Congress "System" in India', in Hasan, Z. (ed.) *Parties and Party Politics in India*, New Delhi: Oxford University Press, pp. 39-55.

Yadav, Y. and Palshikar, S. (2006) 'Party System and Electoral Politics in the Indian States, 1952-2002: From Hegemony to Convergence', in deSouza, P.R. and Sridharan, E. (eds.) *India's Political Parties*. New Delhi: Sage, pp. 73-115.

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
SOCIOLOGY	SOOE116	Characteristics of Indian Society	130

SOOE116 Characteristics of Indian Society

Syllabus

Total hours: 30

Learning outcome

The students entering this course are from different regions of India. They are new to Sociology. Therefore, an introductory paper on Indian Society will enable them to learn Sociology and relate their learning to their own social realities. These students will be able to grasp the concepts when explained to them in the Indian setting. It is also the objective of the Department that students should develop an interest towards Sociology.

Unit 1 – The Basic Social Structure of Indian Society

(10 hours)

- i) Dimensions of Indian Society
- j) Racial/caste classification
- k) Linguistic diversity/pluralism
- l) Religious pluralism
- m) Geographical diversity
- n) India – unity in diversity

Unit 2- Tribal Communities

(10 hours)

- a) Geographical distribution of tribal communities
- b) Scheduled tribes
- c) Tribes
- d) Developmental programmes
- e) Changing face of Tribal life

Unit 3- Women in Modern India

(10 hours)

- a) Demographic Profile
- b) Status of Women- Continuity and Change
- c) Constitutional Provisions, Special laws and Women's Empowerment
- d) Women and Media

Books for Reference:

1. G.S. Ghurye: Caste and Race in India: Popular Prakashan, Bombay (1969)
2. Kapadia K.M.: Marriage and Family in India, Oxford University Press (1980)
3. Ram Ahuja: Indian Social System
4. M.N.Srinivas: Caste in Modern India
5. A.R.Desai: Rural Sociology
6. Dube S.C.: Indian Society
7. Verma R.C: Tribes through the ages
8. Bhowmik K.L: Tribal India.
9. Narpat Singh: Changing Status of Indian Women, Vista International Publishing House, New Delhi (2008)
10. Y.K. Sharma: Indian Society: Issues and Problems, Lakshmi Narain Agarwal (2007)
11. C.N. Shankar Rao: Sociology of Indian Society, S.Chand & Co. Ltd. (2006)
12. N. C Shankar Rao: Principles of Sociology, S.Chand & Co. Ltd. (2006)
13. Dr. Lipi Mukhopadhyay: Tribal Women in Development, Publications Division (2002)

Additional Readings:

- B.N. Singh & Manas Chatterjee (Ed): Tribes in India, RBSA Publishers
- Fuller. C.K. (Ed): Caste Today, Oxford University Press.
- Veena Das, Dipankar Gupta, Patricia Oberoi (Ed): Tradition, Pluralism and Indentity, Sage Publications
- Sharma. K.L.: Social Inequality in India, Rawat Publications.

Websites:

1. www.indianchild.com/Indian_society.htm
2. www.geocities.com/Tokyo/shrine/4287/people.htm
3. www.socioweb.com/
4. sociosite.net/
5. sosig.ac.uk/sociology

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
INDUSTRIAL RELATIONS	IROE 4116	Human Resource Management	65

IROE 4116 Human Resource Management

Syllabus

Total hours: 30

Learning outcome

Personnel who work for Industries/organizations are increasingly being recognized as one of the most significant of all resources. They are aptly termed Human Resource. Human Resource Management forms an important aspect of Industrial Relations. This Open Elective aims at the following:

1. To sensitize the students from Non-Industrial Relations Combination, with the concept of Industrial Relations and Human Resource Management.
2. To make students aware of various aspects of Human Resource Management.

Module 1: INDUSTRIAL RELATIONS & HUMAN RESOURCE MANAGEMENT

Meaning of Industrial Relations and Human Resource Management. Important definitions. Nature and scope. Functions of HRM. Human Resource Audit-meaning, purpose, method and limitations of HR Audit. **(6 hours)**

Module 2: HUMAN RESOURCE INFLOW

Recruitment-Types of recruitment and sources of recruitment-with special reference to advertisements in print media and audio visual media-including web sites. Selection Process. Promotion-meaning and types. Merit Vs Seniority criteria. Transfers-meaning, types and reasons for transfer. Demotion-meaning and reasons for demotion. **(10 Hours)**

Module 3: TRAINING AND DEVELOPMENT

Meaning. Importance of training and development. Methods of training and development. **(6 hours)**

Module 4: WORK ENVIROMENT

Fatigue, Monotony and Boredom-causes and effects. Industrial Accidents and Industrial Safety. Legal Provisions for Safety, Health and Welfare of workers in India. Challenges faced by H.R. Managers **(8 hours)**

BOOKS FOR REFERENCE:

1. Flippo, Edwin B, Principles of Personnel Management, McGraw Hill book Co., New Delhi
2. Mamoria, C.B., Personnel Management, Himalaya Publishing House, Mumbai, 2000
3. Aswathappa K, Human Resource Mangement, Tata McGraw-Hill Publishing company Limited, New Delhi, 2008
4. Yoder, Dale, Personnel Management and Industrial Relations, Prentice-Hall of India, New Delhi
5. Venkata Ratnam, C.S., Industrial Relations, Oxford University Press, New Delhi, 2006
6. Aswathappa K, Organisational Behaviour, Himalaya Publishing House, Mumbai, 2007
7. Kapoor, N.D., Elements of Industrial Law, Sultan Chand & Sons, New Delhi, 2015

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
ENGLISH	ENGOE 4116	Readings in Popular Culture	65

ENGOE 4116 Readings in Popular Culture

Syllabus

Total hours: 30

Course Description

The course will offer an introduction to Cultural Studies through an exploration of the ideas of Raymond Williams and Stuart Hall in relation to experiences such as popular cinema, popular music and online experience. Students from IV Semester BA, BSc and BCom may opt for this course.

The course is organized into four modules. The **Introductory** module will look at notions of culture, and allow the student to understand the different ways in which popular culture is theorised.

The **Popular Cinema** module will look at narratives of stardom as they emerge in specific cinematic traditions such as Bollywood and regional cinema. Experiences such as theatre-going in Bangalore will receive critical attention.

The **Popular Music** module will require the student to look at specific phenomena such as the worlding of Indian music with specific reference to A.R. Rahman. Other case studies such as the parodic music of Weird Al Yankovic, immigrant music by Asian Dub Foundation, and Bob Dylan's transition from folk music to a larger audience will also be taken up.

Twitter and Reddit will be the objects of scrutiny in the **Online Experience** module. The experiences of sociality that each space offers will receive critical attention.

Assessment

Students may pick one area of interest to write a 1500-word essay for Internal Assessment. The Mid-Semester Test and the End-Semester Examination will test the student on his/her understanding of the concepts discussed, and their ability to parlay experience into discussion and critical commentary.

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
COMMUNICATIVE ENGLISH	CEOE 4116	Public Speaking as Story-Telling	65

PUBLIC SPEAKING AS STORY-TELLING

Syllabus

Total hours: 30

Course Description

The course will offer practical exercises in public speaking with a focus on story-telling.

A short module in Received Pronunciation and speech-training will also be offered as part of the course. **(8 hours)**

Scripting for such occasions will be examined through practical exercises. **(4 hours)**

Dramatised Reading, JAM, Extempore, Improv and Slam Poetry exercises will also be held, with an emphasis on performance before live audiences. **(10 hours)**

The art of MC-ing will be explored as well. **(8 hours)**

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
JOURNALISM	JOUOE 4116	Journalism as Story-Telling	65

JOUOE 4116 Journalism as Story-Telling

Syllabus

Total hours: 30

Course Description

The course will offer an introduction to the ways in which the digital age has transformed journalism. The course is organized around readings in the new forms that are emerging, ranging from podcasts, to graphic journalism, to layered narratives. The course also has a practice dimension in that students will receive some training in how to use digital resources for storytelling.

The course is organized into four modules. The **Introductory** module will offer readings in digital storytelling, featuring analyses of the developments of the last decade by media historians.

The **Graphic Journalism** module will examine the ways in which journalism has borrowed from the graphic novel tradition, as also from new ways of building relationships between visuals and text.

The **Podcast Module** will examine the forms of cultural commentary that this genre supports.

The **Experience** module will offer the student training in using WordPress and allied resources for digitally inflected storytelling.

Assessment

Students may pick one area of interest to write a 1500-word essay for Internal Assessment. The Mid-Semester Test and the End-Semester Examination will test the student on his/her understanding of the concepts discussed, and their ability to parlay experience into discussion and critical commentary.

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
PSYCHOLOGY	PSYOE 4116	Foundation to Psychology and Counseling	65

PSYOE 4116 Foundation to Psychology and Counseling

Syllabus

Total hours: 30

Preamble

Psychology is the scientific and systematic study of human behavior and its mental processes. Human behavior however is still puzzling and mysterious to us. The various approaches and theories of human behavior are introduced to help students develop a better understanding and appreciation of one's own self and that of others. Psychology aims at providing the students with a general overview of the subject of psychology. More importantly, this course aims to facilitate personal development or growth of students through enrichment activities and peer group interactions.

Learning outcome

1. On completion of this course, students should know and understand the major theoretical aspects and methods of psychology.
2. Have knowledge of the basic contents of psychology.
3. They should be able to integrate into life what their knowledge of psychology.
4. To rationalize human behavior.
5. To integrate scientifically and systematically application into academia.
6. To understand the fundamental processes underlying human behavior and the process of human development and change from biological and psychosocial perspective.

UNIT - 1 INTRODUCTION (5 Hours)

- i. **Definition & goals of Psychology.**
- ii. **Many View Points in Psychology** –Behaviorism, Psychodynamic, Humanistic Psychology.
- iii. **Types of Psychological research** - observation, case Studies, Survey method, The correlational methods, the experimental method
- iv. **Application of Branches of Psychology**

UNIT - 2 BIOLOGICAL FOUNDATIONS OF BEHAVIOUR (5 Hours)

- i. **An overview of the Nervous System;** Neurons and Nervous(Structures of the neuron, neural impulse, synapse, neurotransmitters)
- ii. **Central Nervous System:**
- iii. **The Brain** – Structure of the brain; brain stem; structure of the cortex; association areas of the cortex (Broca's area and Wernicke's area)
- iv. **The Spinal Cord** – The Peripheral Nervous System – The Somatic Nervous System and the Autonomic Nervous System.
- v. **Endocrine glands.**

UNIT 3: INDUSTRIAL AND CONSUMER PSYCHOLOGY (5 Hours)

- i. **Definition, Goals, Forces and Fundamental concepts** -Nature of people and nature of organization.
- ii. **History** of industrial Psychology and Organizational Behavior,
- iii. **Areas of Industrial psychology.**
- iv. **I-O Psychology as a career:** Training & Employment.

- v. **Scope of Consumer Psychology; Nature and Scope of Advertising;** Types of Advertising Appeals-Trademarks, Product Image, Product Packaging, Sex in Advertisements and Women in Advertisement. Consumer Behaviour and Motivation: Buying Habits and Brand Loyalty, Product Pricing.

UNIT 4: PUBERTY AND ADOLESCENCE

(5 hours)

- i. **Definition**
- ii. **Physical Development-** Adolescent's growth spurt, primary, secondary sexual characteristics, signs of sexual maturity.
- iii. **Eating disorders and Nutrition**
- iv. **Substance abuse** – risk factor of drug abuse, gate way drugs – alcohol – marijuana and tobacco; **STD's** – sexually transmitted diseases.

UNIT 5: ABNORMALITY

(5 hours)

- i. **Definition:** Defining abnormality, criteria for abnormality – statistical, social, personal discomfort, maladaptive. Myths and Misconceptions of abnormal behavior. DSM IV/V
- ii. **Types of Mental Illness:** Anxiety based disorders, Somatoform disorders and Dissociative disorders, Mood disorders, Schizophrenia.

UNIT 6: COUNSELLING

(5 hours)

- i. **Definition & goals of counselling:** Definition of Counselling, Goals of Counselling, Scope of Counselling. Difference between Counselling, Guidance and Psychotherapy. Current Trends.
- ii. **Process of counselling:** Client-Counsellor Relationship establishment, Problem Identification and Exploration. Working in a Counselling relationship: Leading, Multifocused responding, Accurate empathy, self disclosure, immediacy, Transference and Counter Transference. Solution Application and Termination. Issues related to termination - Follow-up, Referral and Recycling.
- iii. **PERSONAL ASPECTS OF COUNSELLING SKILLS:** Counselling Skills: Communication Skills :Non –verbal and Verbal Communication Skills. Variables affecting the Counselling Processes: Counsellor Variables – Age, Experience, Sex, Interest, Perceptual Sensitivity, Personal Adjustment, Personal Security, Genuineness, Counsellor's Attitude and Beliefs, Rapport, Empathy. Portrait of an Effective Counsellor. Counsellee factors.
- iv. **ETHICS IN COUNSELLING:** Codes of Professional Ethics, Ethical Principles: Respect for Autonomy, Beneficence, Nonmaleficence, Justice, Fidelity. Ethical Theory: Relationship between Ethics and Law; Common Ethical violations by Mental Health Professionals.

REFERENCES:

- Baron,R.A. Psychology.(1995). 3rd edition.Delhi:Prentice Hall. Munn,N.L.,Fernald,L.D., & Fernald,P.S.(1997)
- John. W Santrock, Psychology Essentials 2, H Edition (Updated 2006, Tata McGraw Hill Publication.
- Feldman. R.S. understanding Psychology, IV edition, 2006, Tata McGraw Hill Publication.
- Diana E. Papalia, Sally Wendkos Olds, Ruth Dusking Feldman, Human Development, 9th edition, Tata McGraw Hill Publication
- Robert C Carson, James N Butcher, Susan Mineka, Jill M Hooley, Abnormal Psychology 13th edition
- Robert.L.Gibson, Marianne.H. Mitchell, Introduction to counselling and guidance. 7th edition, Prentice Hall India Private Limited.
- **Schultz D.P. and Schultz E.S** –Psychology & Work Today Eighth Edition ,Pearson Education,Inc.and Dorling Kinderssley Publishing Inc.

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
BCA	BCAOE 4116	Basic Programming Skills	65

BCAOE 4116 Basic Programming Skills

Syllabus

Total hours: 30

Learning outcome

On successful completion of the course the students will be able to do the following:

- To provide an in-depth training for developing programming skills.
- To understand and develop programs independently.
- To understand the methods of debugging and correcting programs.
- To provide a proper foundation for learning other programming languages.

1. Introduction to Programming

Problem Solving Using Computers: Language Classification, Problem Analysis, Algorithm and Flowchart design. **Algorithms:** Steps in developing algorithms, advantages and disadvantages. **Flowcharts:** Symbols used in developing flowcharts, advantages and disadvantages. Coding, testing and debugging. Documentation and maintenance. Program development and modular design. **(5 Hours)**

2. Introduction to C Programming:

History, Structure of a C program, C Conventions, Character Set, Identifiers, Keywords, Simple Data types, Modifiers, Variables, Constants, Operators (Arithmetic operator, relational operator, logical operator, ternary operator, unary operator, shorthand operator, bit-wise operator and arithmetic operator) Operator precedence. Input and Output operation: Single character input and output, formatted input and output, Buffered input. **(5 Hours)**

Control Structures:

Introduction, Conditional statement, if statement, if-else statement, nested if statement, else-if statement and switch statement. Goto statement. Looping statement, while statement, do-while statement, for statement, break and continue, nested for statement. **(10 Hours)**

Arrays:

Introduction (One and two dimensional), Declaration of arrays, Initialization of arrays, processing with arrays. String manipulation, declaration of string arrays, string operations. **(5 Hours)**

Functions:

Introduction, advantages of subprograms, Function definition, function call, Actual and formal arguments, local and global variables, function prototypes, types of functions, recursive functions, arrays and functions. **(5 Hours)**

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
BVC	BVCOE 4116	1. Reading Images	65
	BVCOE 4216	2. Film Appreciation	65

BVCOE 4116 Reading Images

Syllabus

Total hours: 30

Learning outcome

The course will enable students to understand, interpret, and critically analyse visuals in various media texts.

Unit 1: Definition of signs and symbols. Types of signs, Symbolism.

Unit 2: Signifier and signified. Denotative and connotative meaning. Syntagmatic and paradigmatic meaning.

Unit 3: Approaches to visual analysis: Marxist, Feminist, Psychoanalyst, Post-modern.

Unit 4: Case studies of films, TV shows, advertisements, news, and internet memes.

Internal Activities:

1. Analysis of media visuals
2. Presentations on relevant topics

References:

- Walter Benjamin, *Illuminations* (trans., 1968)
- Louis Althusser, *Lenin and Philosophy, and Other Essays* (1969, trans. 1971)
- Raymond Williams, *Culture and Society, 1780-1950* (1960) and *Marxism and Literature* (1977)
- Stuart Hall et al, *Culture, Media, Language* (1980)
- Fredric Jameson, *Marxism and Form* (1971) and *Postmodernism, or the Cultural Logic of Late Capitalism* (1991)
- Terry Eagleton, *Criticism and Ideology* (1976) and *Marxism and Literary Criticism*
- David Harvey, *The Condition of Postmodernity* (1989)

BVCOE 4216 FILM APPRECIATION

Syllabus

Total hours: 30

Learning outcome

Film appreciation is a course that explores the world of film and filmmaking. We will examine the styles of film, and the techniques used in making a film, and some of the film forms. This course will introduce the art, technology, language, and appreciation of film, exploring the varieties of film experience, film, and the ways of viewing.

Unit 1: The Value of Film Viewing: Film as an experience. Understanding Cinema

Unit 2: Film History: World and Indian

Unit 3: Film Techniques: Shot, Camera Angles, Mise-en-scene, montage

Unit 4: Film Styles and Movements, Genre

Unit 5: Directors: Akira Kurusowa, Satyajit Ray, Ingmar Bergman, Martin Scorsese, Stanley Kubrick

Suggested Activity

Analysis of different film genre based on the theories covered

Internal Activities

1. Background research on concepts related to films
2. Presentation of Film Directors as suggested in the course

Key Texts

1. Bordwell D & Thompson K [1990] *Film Art – An Introduction*. Knopff, NY.
2. Mast, S & Cohen, M (ed) [1985] *Film Theory and Criticism*. Oxford, OUP.
3. Monaco, James [1986] *How to Read a Film*. Delhi, Macmillan.

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
BSW	SWOE 4116	Basic Human Rights Approach	130

BVCOE 4116 Basic Human Rights Approach

Syllabus

Total hours: 30

Learning outcome

- Basic awareness on human rights.
- To provide an overview of social legislation and familiarize students with Pertinent legislations
- To educate the students about the existing judicial system & it's functioning.

Unit I Basic Concept (8 Hours)

- What are Human Rights?
- Human Right Values- Dignity, Liberty, Equality, Justice, Unity in Diversity, Ethics and Morals
- Meaning and significance of Human Rights Education

Unit II Human rights of disadvantaged groups (8 Hours)

- Status of SC/ST and Other Indigenous People in the Indian Scenario
- The Minorities and Human Rights
- Sex Workers
- Migrant Laborers

Unit III Role of Different Bodies (4 Hours)

- Role of Advocacy Groups:
- Role of Professional Bodies: Press, Media, Lawyers, Educational Institutions
- Role of Corporate Sector, NGO's.

Unit IV Government Services on Public Interest (3 Hours)

- Right to Information Act – Procedure for petitioning an RTI
- Public Interest Litigation

Unit V Documentaries (7 Hours)

- India Untouched
- Prostitutes of God
- Chakravyuh

References:

1. Introduction to the Constitution of India Brig kishore Sharma.
2. Handbook of Human Rights Jayant Chaudhary
3. Family Law I A Saiyed.
4. Bare Acts of various legislations.
5. Social Legislation in India: Gangrade K D
6. Social Policy & Social Development in India: Kulkarni P D

DEPARTMENT	CODE	TITLE OF THE OPEN ELECTIVE (OE)	Total No. of Seats available for OE
B.Com	BCOMOE 4116	1. Basic Accounting	260
	BCOMOE 4216	2. Marketing Management	260
	BCOMOE 4316	3. Fundamentals of stock markets	130

BCOMOE 4116 Basic Accounting

Syllabus

Total hours: 30

Learning outcome

1. To enable students to develop knowledge and understanding of the principles, policies, techniques and procedures of financial accounting
2. To understand the terminology and purposes of accounting for individuals, businesses and industries as a whole.

Module 1

(5 Hours)

Meaning and scope of accounting – definition – meaning – terminologies - purpose – importance – users – principles and concepts – single and double entry system - Basic Accounting Procedures – Rules of debit & credit, method of journalizing.

Module 2

(10 Hours)

Journal entries – ledger – trial balance. Cash book and petty cash book

Module 3

(15 Hours)

Preparation of Final accounts: Trading account, Profit and loss account and Balance sheet preparation.

Reading List:

- Maheshwari, S.N. and S. K. Maheshwari; *An Introduction to Accountancy*, Eighth Edition, Vikas Publishing House, 2015.
- Monga, J.R. and Girish Ahuja; *Financial Accounting*, Eighteenth Edition, Mayoor Paper Backs, 2015.
- Bhattacharya, S.K. and J. Dearden; *Accounting for Manager – Text and Cases*, Third Edition, Vikas Publishing House, 2013.
- Maheshwari, S.N. and S.K. Maheshwari; *Advanced Accountancy*, Eighth Edition, Vol. I & II, Vikas Publishing House, 2015.
- Gupta, R.L. and V.K. Gupta; *Financial Accounting: Fundamental*, Sultan Chand Publishers, 2014.

BCOMOE 4216 Marketing Management

Syllabus

Total hours: 30

Objective

1. To give students a basic understanding of the elements of marketing and marketing management

Module 1: An Introduction to Marketing

(4 Hours)

Meaning, nature, concepts and scope of Marketing – Marketing environment (Micro and Macro) – Basic elements of Marketing Mix – Marketing Management (meaning and scope)

Module 2: Marketing Mix

(18Hours)

Product: Concept, Product classifications – Major product decisions: Product attributes – Branding, Packaging and labeling – New product development – Product life cycle.

Pricing: Significance – Factors affecting price determination – pricing methods and strategies – Market skimming and penetration pricing policies.

Distribution: Channels of Distribution-Meaning, importance and functions – Distribution Logistics: Meaning, importance and decisions.

Promotion: Meaning and importance – promotion mix – promotion methods

Module 3: Segmentation, Targeting and Positioning

(8 Hours)

Segmentation: Meaning, benefits and bases of segmentation – Target marketing strategies – Positioning: Meaning and importance, major bases for positioning

Reading List

- CSV Murthy: Business Ethics
- Czimkota, Marketing Management, Vikas Publishing House (P) Ltd.
- Gary Armstrong and Philip Kotler, The Essentials of Marketing, Pearson Education, New Delhi.
- Majaro Simon, The Essence of Marketing, Prentice Hall, New Delhi.
- McCarthy and Pereault; Basic Marketing, McGraw Hill.
- Michael Etzel, Bruce J. Walker, and W. J. Stanton, Marketing, McGraw Hill, New York.
- Philip Kotler and Gary Armstrong, Principles of Marketing, Prentice Hall of India. New Delhi.
- Rajan Saxena, Marketing Management, Tata McGraw Hill, Publishing Co., New Delhi.
- Sontaki: Marketing Management

BCOMOE 4316 Fundamentals of Stock Market

Syllabus

Total hours: 30

Objectives:

- To develop conceptual understanding of fundamentals of Financial Markets and Stock Trading
- To familiarize students with the Indian financial systems, market mechanisms and instruments of investment from individual and corporate perspective

Module 1: Primary market

(8 Hours)

Features of primary market and its classification, Methods of floating issues in primary market, IPO process (Elaborate discussion of all the steps), SEBI requirement and guidelines for IPOs, Functions of Merchant Bankers in issue process, Factors to be considered during IPO process, IPO grading process.

Module 2: Secondary Market

(12 Hours)

Features of secondary market, Players in secondary market, Working of stock exchange, Stock exchange brokers and their functions, Membership eligibility conditions, Depository (Functions and Benefits), Regulatory framework of stock exchange, Online trading procedure, Trading & settlement mechanism.

Module 3: Fundamental and Technical Analysis

(10 Hours)

Concept of fundamental and technical analysis

Reading List:

- Bhole, L.M. Indian Financial Institutions, Markets and Management (2014), McGraw Hill, New York.
- Gurusamy, Financial Markets and Institutions, (2013) 3rd edition, Tata McGraw Hill.
- K. Venkataramana, Stock & Commodity Markets (2015), SHBP.
- Khan, Indian Financial Systems (2015), 6th edition, Tata McGraw Hill
- Saunders, Financial Markets and Institutions (2014), 3rd edition, Tata McGraw Hill.

NOTE : If any queries, can mail the CBCS coordinator

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