

Academic Council Meeting No. and Date : 04 / June 14, 2022

Agenda Number : 2

Resolution Number : 15 / 4.5 & 4.13



**Vidya Prasarak Mandal's
B. N. Bandodkar College of
Science (Autonomous), Thane**



**Syllabus for
Programme : Bachelor of Science
Specific Programme : Human Science**

[S.Y.B.Sc.Human Science]

**Revised under Autonomy
From academic year 2022 - 2023**

□Course Structure & Distribution of Credits:

B. A / B. SC. in Human Science consists of 5 (Five) theory courses, 3 (Three) practical lab courses in each Semester. Each theory course will be of either of 2/4 (two/four) credits, a practical lab course will be of 2 (two) credits. A learner earns 20 (twenty) credits per semester and a total 120 (one hundred twenty) credits in six semesters.

Eligibility:

B. Sc. in “Human Science” Program is open to candidates who have passed HSC. Examination in Arts or Science from Board of Maharashtra or its equivalent.

Duration: 3 years

Mode of Conduct :

Laboratory practical / Offline lectures / online lectures

Program specific Outcome

The B.Sc. Human Science is designed to give better opportunity chances in jobs, higher education. The three years course (six semesters) is an amalgamation of various disciplines of sciences namely psychology, sociology, anthropology, palaeontology, neuroscience, genetics, home science, law, IT and other allied spheres of knowledge. The course involves data collection, presentations. The learner can pursue masters in M.A Anthropology, Sociology, History, Psychology, M.Sc. in Biodiversity, Environmental sciences, Forensics science, Nutrition and dietetic, also can take admission in LLB, MBA, MMS. Even after graduation they can placed in Government offices, Municipal Corporations, private companies, Banks, HR, Museum curator, medical transcriptionist, hospital administration, or in schools |college as teachers

Program: B. Sc
S. Y. B. Sc.
Course: Human Sciences
(Credit Based Semester and
Grading System with effect
from the academic year 2022-
23) S. Y. B. Sc. (Human
Sciences) Structure of
Semester III

Course Code	Course Title	Lectures	Credit Points
BNBUSHS3T1	Haematology, Immunology and Epidemiology	45	2
BNBUSHS3T2	Population studies	45	2
BNBUSHS3T3	Psychology	45	4
BNBUSHS3T4	Management and Organization – Structure and Functioning	45	4
BNBUSHS3T5	Use of ICT, Internet security and Environmental Laws	45	2
BNBUSHS3P1	Study of blood & common pathogens	30	2
BNBUSHS3P2	Population study, EVS & IT	30	2
BNBUSHS3P3	Project Submission and Presentation	30	2
Total		315	20

S. Y. B. Sc. (Human Sciences)
Structure of Semester IV

Course Code	Course Title	Lectures	Credit Points
BNBUSHS4T1	Anthropology and Archaeology	45	2
BNBUSHS4T2	Sex, Fertility and Psychosocial issues	45	2
BNBUSHS4T3	Biotechnology	45	2
BNBUSHS4T4	Economics	45	4
BNBUSHS4T5	Economics and Psychology	45	4
BNBUSHS4P1	Reproductive system & biotechnology	30	2
BNBUSHS4P2	Archaeology, economics & psychology	30	2
BNBUSHS4P3	Project Submission and Presentation	30	2
Total		315	20

Semester III Syllabus

Course Code	Course Title and Contents	Lectures	Credit Points
BNBUSHS3T1	Haematology, Immunology and Epidemiology	45	2
Course objective: •It will help Students to learn fundamentals of haematology, immune system, broad public health problems and the National Preventive programmes and importance of vaccination			
Unit I	Introduction to haematology & immunology		15
	<ul style="list-style-type: none"> • Composition of Blood • Blood groups and Blood banks • Introduction to Immunology • Autoimmune Diseases –Definition and Reasons, examples inflammatory bowel disease, Myasthenia graves, Psoriasis, Rheumatoid arthritis. 		
Unit II	Introduction to Epidemiology		15
	<ul style="list-style-type: none"> • Historical evolution of epidemiology • Name some of the key uses of epidemiology • Identify the core epidemiologic functions • Describe primary applications of epidemiology in public health practice • Specify the elements of a case definition and state the effect of changing the value of any of the elements • List the key features and uses of descriptive epidemiology • List the key features and uses of analytic epidemiology • List the three components of the epidemiologic triad • Describe the different modes of transmission of communicable disease in a population 		
Unit III	Vaccination, National preventive programmes & International agencies		15
	<ul style="list-style-type: none"> • Vaccines - Rabies, Hepatitis, Influenza, COVID - 19, HPV Vaccines(prevention of cervical cancer) • National Preventive programmes - TB control programme, malaria control programme. International agencies and their programmes WHO, Red Cross UNAIDS, World Bank Funding related to Health.		

Course outcome: After studying this paper students should be able to :

- i. Read blood profile & able to understand various blood tests
- ii. Identify various underlying sources, causes & method of control of disease
- iii. Importance of vaccination & related preventive programmes

Course Code	Course Title and Contents	Lectures	Credit Points
BNBUSHS3T2	Population studies	45	2
<ul style="list-style-type: none">To understand the components and dynamics of population with respect to culture, society, ethics and politics.To understand the importance of culture in the behaviour difference			
Unit I	Population demography	15	
	<ul style="list-style-type: none">Census of Human population: Definition, purpose and MethodologyPopulation Dynamics Density, Natality, Mortality, Age Pyramid, Sex Ratio, Fertility rate, Growth Curves, Migration.Population Theories.Historical and global population trends - Qualitative and QuantitativeEthical, social and political issues.		
Unit II	Public health	15	
	<ul style="list-style-type: none">Public health studiesOccupational healthGlobal and local health issuesMaternal , child healthFamily planning		
Unit III	Cultural Differences	15	
	<ul style="list-style-type: none">Similarities and differences in behaviour across culturesCultural and biological transmissionEarly development and caretakingEnculturation and socializationAdolescenceMoral development		
Course outcome: <ul style="list-style-type: none">The learner will understand the demography perspectives.The learner will understand issues like public health; maternal child health, global local health occupational health hazards etc.The learner will also develop behaviour and moral aspectLearner will learn the difference in the population behaviour across cultures			

Course Code	Course Title and Contents	Lectures	Credit Points
BNBUSHS3T3	Psychology	45	4
<ul style="list-style-type: none">To elaborate on aspects of cognition, theories of personality and intelligenceTo give students exposure to the research work in the field			
Unit I	Theories of Personality	15	
	An overview of Theories of Personality <ul style="list-style-type: none">Sigmund Freud and PsychoanalysisThe Behaviourist view of PersonalityThe Social Cognitive view of PersonalityHumanism and PersonalityTrait TheoriesThe biology of Personality: Behavioural GeneticsAssessment of Personalityh) Applying Psychology – Personality testing on the internet		
Unit II	Thinking and Reasoning	15	
	<ul style="list-style-type: none">Definition and nature of thinkingKinds of thinkingProblem solvingConcept formation and categorization: prototypes, hierarchies of concepts.Reasoning: deductive, inductive reasoning •Creative thinking		
Unit III	Intelligence, IQ measurement & behaviour	15	
	<ul style="list-style-type: none">· Individual differences and Intelligence theoriesIndividual differences, major areas of differences, heredity v/s environment, Intelligence -what is it? Measurement ofIntelligence and Intelligence Scales What is IQ, IQ and behaviour.		
Course outcome: <ul style="list-style-type: none">To Understand and apply the theories of personalityTo get acquainted with researches in the fieldUnderstand the mental processes involved in thinking and reasoningTo study and apply theories of intelligence and factors affecting the same			

Course Code	Course Title and Contents	Lectures	Credit Points
BNBUSHS3T4	Management and Organization – Structure, Functioning	45	
			4
Course Objective :To elaborate on aspects of cognition, theories of personality and intelligence			
Unit I	Management approaches & skills	15	
	<ul style="list-style-type: none">• Nature Scope and process of management, historical evolution of management & its foundation.• Types of Management• Different approaches and systems of management,• Types of skills, roles and modern challenges.• Management Planning Process, Managerial decision Making• Introduction to Organizing, Organizational Structure and Its Dimensions.• Different Types of Organizational Design and Their Advantages and Disadvantages.		
Unit II	Shaping the leaders	15	
	<ul style="list-style-type: none">• Leadership: Elements of leadership in work group• The quality of modern leadership• Leadership theories and leadership styles• The role of power and the role of expectations• Leadership functions• Characteristics of successful leaders• Pressures and problems of leaders• Difference between manager and leader		
Unit III	Organizations & social responsibility	15	
	<ul style="list-style-type: none">• Relationship between organization objectives and organization hierarchy• Auxiliary Staff and line staff.• OCB-Organizational, Citizenship Behaviour.• Corporate social responsibility & Institutional Social Responsibility.• Go green concept in various industries/organisation		

Course outcome:

The learner will understand the techniques of management organization leadership & will develop leadership managerial skills with social responsibilities & organizational behaviour.

Course Code	Course Title and Contents	Lectures	Credit Points
BNBUSHS3T5	Use of ICT, Internet security and Environmental Laws	45	2

Course Objective: To make the students aware about the environmental and cyber laws and related issues.

Unit I	ICT & Digitization	15
	<ul style="list-style-type: none"> • Use of ICT in organization: Definition, Meaning and Importance of ICT system, Types of ICT systems, use of ICT for an Organization. • Technology - Exploration to Decision making, Implementation, Ecommerce and E-business. • Digitization: Definition, Process, Analog signals to digital signals, Analog text to digital, implications of digitization. · Communication strategies - Digitization, information and communication theories and communication strategies 	
Unit II	Cyber Laws, Investigation and Ethics:	15
	<ul style="list-style-type: none"> • Cyber Crime, Information Security and Law, Types & overview of Cyber Crimes, Cyber Law Issues in E-Business • Management overview of Indian IT Act, Ethical Issues in Intellectual property rights, • Copyright, Patents, Data privacy and protection, Domain Name, Software piracy, Plagiarism. 	
Unit III	Environmental Science & laws:	15
	<ul style="list-style-type: none"> • Introduction to Climate Systems: Atmosphere, Hydrosphere, Lithosphere, Cryosphere, Biosphere. • Human – Climate Interactions: Impacts of Natural Calamities on humans (E.g. Floods, Tsunami, Cyclones and Earthquakes) · Impacts of Human activities on Climate (Eg. Acid rains, Ozone depletion, Global Warming, Greenhouse effect, <i>El Nino</i> and <i>La Nina</i>) • Introduction to Environmental Laws: Air Act (1981), Water Act (1974), Noise Pollution Act (2000), Environment Protection Act (1986), Forest Act (1927). 	

Course outcome:

- The learner will ably understand the use of digitalization laws of cyber, ethics in first two units
- The learner will understand environmental science & policies for wellbeing of society

S.Y.B.Sc. Elective Course

(Can be opted against any course of respective semester)

Objectives

Develop an understanding of transnational issues and trends across the East Asian region, thus deepening one's insight into both the intraregional dynamics and the region's linguistic, historical and current relationship to other parts of the world.

Cultivate the habit of thinking across disciplines—literary studies, film studies, art history, religious studies, linguistic studies, history, gender and ethnic studies and more—in order to achieve a comprehensive understanding of East Asian cultures and societies.

The world is changing too fast and young people must acquire an education that meets the contemporary setting's demands. Arts and culture form an integral part of far-reaching and competitive training.

Human Science Programme
ELECTIVE S.Y B.Sc SEMESTER III ART AND CULTURE OF ASIA
(PART1)

Course code	Course Title & Contents	Credit Points	Lectures
BNBUSHS3E1	BASICS OF ANCIENT ART AND LITERATURE	02	45
Unit I :	3.1(EI)BASIC OF ORIENTAL LITERATURE 3.2 Multiple cultural regions of Asia Central Asia East Asia South East Asia		15
Unit II :	SULPTURE AND CULTURE OF ORIENTAL REGION Indus, Hindu, Buddhist, Jain, Sikhism, Islamic Shamanism. Sculptures and Balinese Hinduism ,folk music, folk lore		15
UNIT 3	TRADITION, RITUALS AND CONSERVATION POLICIES Indus, Hindu, Buddhist, Jain, Sikhism ,Islamic, Shamanism, traditional festivals, fairs, death rituals, birth rituals		15
Outcomes : ➤ Learner should understand the Asian culture and beliefs.			

Semester III Practicals

Identification for all practicals should be shown with available models, photographs, Google images, diagrams from books whichever is available

Course Code BNBUSHS3P1	Course Title and Contents PRACTICAL-I Study of blood & common pathogens	Credit Points 02	Lectures
1.	Blood group test		03
2.	Haemin crystal		03
3	Microbial staining - Bacterial gram positive and gram negative (curd)		03
4	To study various blood reports & interpretations.		03
5.	Leukemic cell slide--- Identification		03
6.	ELISA --- Identification		03
7.	Yeast cell --- Identification		03
8.	Virus model/Photo - Identification Polio virus, AIDS Virus, H1N1, COVID 19.		03
9.	Parasites Slide/Photos ----- Plasmodium, Enterovirus, Ascaris, Wuchereria, Tapeworm		03
10.	Enumeration of RBC (Total count)		03
11.	Enumeration of WBC (Total count & differentiation)		03
12.	To study the effect of different NaCl conc. on structure of RBCs.		03
13.	Pregnancy test by using test kit.		03

Course Code BNBUSHS3P2	Course Title PRACTICAL-II Population study, EVS & IT	Credits 02	Lectures
1.	Population density study by Daphnia / by using coloured thermocol balls.		03
2.	Age Pyramids and Growth Curves –Identification		03
3	Determination of Natality and Mortality rate.		03
4	Mock Census—Analysis of available data,		03
5.	Practical nine dot problem (Psychology).		03
6.	Practical – experiment on Method of Loci		03
7.	Administration, Scoring, Interpretation of Levenson’s LOC scale		03
8.	To study Dissolved oxygen in the given water sample.		03
9.	To study Carbon dioxide in the given water sample.		03
10.	To study phosphate phosphorus in the given water sample.		03
11.	pH of water with pH paper and Universal Indicator.		03
12.	pH of Soil with pH paper and Universal Indicator		03
13.	Demonstration of pH with pH meter		03

14.	Study of pollution monitoring and measuring instruments (Identification): HVS, Decibel Meter	03
15.	Practical's based on IT i. Document Production: Using Word or Open office do page setting, formatting of text, inserting and editing with tables, inserting image	03
16.	Data Manipulation: Creating blank databases, creating queries, creating reports iii. Spreadsheet: Entering formula, functions, data sorting, validation, filter iv. Data analysis, Graph, Charts, Pivot table	03
17.	PowerPoint: Creating presentation, animation.	03
18.	Taking the Output: You need to be able to produce hard-copies of your work (printing) and, in some cases, prepare data for use in other applications. How to load a local printer, network printer and take the printout.	03
19.	Computer Security: Know about security centre of computer, antivirus, configuring firewalls	03
20.	Internet: Browsing and searching information on net, access to research journals, articles, online commerce (E-Commerce)	03
21.	Evolution of O ₂ during photosynthesis & Bell's experiment	

Course Code BNBUSHS3P3	Course Title PRACTICAL-III Project Submission and Presentation	Credits 02	Lectures
Following are suggestive projects. Projects of similar nature based/related to syllabus can be taken.			
1.	Collection of Data to work on population dynamic and statistic application	03	
2.	Industrial visit report for study the organizational management	03	
3	To study blood groups during blood donation camps and make comparative data.	03	
4	To collect the data of environment related issues from print media and present the data.	03	
5.	To visit special schools and present the visit report.	03	
6.	Presentation of case study related to cybercrime.	03	
7.	Interview leaders from different fields and present the report. Film/Book review on syllabus related topics	03	
8.	Field visit/ Excursion / Biodiversity visits.		

PRACTICAL EXAMINATION

S. Y. B. Sc. Semester- III

Code : BNBUSHS3P1

Duration: 3 Hrs Total Marks : 100

Q. I	Major Experiment	30 Marks
	Determination of Blood group of human & Preparation of haemin crystal	
	OR	
	Enumeration of RBC / Enumeration of WBC	
Q. II	Minor Experiment	20 Marks
	Bacterial staining for gram positive and gram negative bacteria	
	OR	
	To study the effect of different NaCl conc. on the structure of RBCs.	
	OR	
	Pregnancy test by using a test kit. OR To study various blood reports & interpretations.	
Q. III	Identify and describe two from each group	30 Marks
	a. Leukemic cell/ELISA/Yeast cell b. Virus photo (Polio virus/ H1N1 virus/Aids virus/COVID 19) c. Parasite (Plasmodium/Enterobius/Ascaris/Wuchereria/Tapeworm)	
Q. IV	Viva Voce	10 Marks
Q. V	Journal	10 Marks

S. Y. B. Sc. Semester- III Code
: BNBUSHS3P2
PRACTICAL EXAMINATION
Duration: 3 Hrs Total Marks : 100

Q. I	Major Experiment	30 Marks
	Problem: data analysis Natality and Mortality	
	OR	
	Mock Census	
	OR	
	Nine dot problem / Method of Loci	
	OR	
	To study Dissolved oxygen in the given water sample./ To study Carbon dioxide in the given water sample.	
	OR	
	To study phosphate phosphorus in the given water sample.	
Q. II	Minor Experiment	20 Marks
	Estimation of population density of Daphnia	
	OR	
	Determination of pH of water with pH paper and Universal indicator	
	OR	
	Determination of pH of soil with pH paper and Universal indicator	
	OR	
	Administration, Scoring, Interpretation of Levenson's LOC scale	

Q. III	Identify and describe two from each group	30 Marks
	a. HVS/ Decibel Meter/pH meter. b. Age Pyramids –Stable/Declining/Growing c. Growth curves –S shape/J shape d. Bell Experiment/ Evolution of O ₂ during photosynthesis.	
Q. IV	Viva Voce	10 Marks
Q. V	Journal	10 Marks

PRACTICAL EXAMINATION
S. Y. B. Sc. Semester- III
Code : BNBUSHS3P3

Duration: 3 Hrs Total Marks : 100

Q. I	*Project to be given from the suggestive topic given in the syllabi at the beginning of the semester. Evaluation to be done during practical examination.	
	Marks distribution for project	
	1. Identification and outline of problem	20
	2. Data Collection	30
	3. Report submission	20
	4. Presentation and viva	30

S.Y.B.Sc. Human Science
Semester IV Syllabus

Course Code	Course Title and Contents	Lectures	Credit Points
BNBUSHS4T1	Anthropology and Archaeology	45	2
Course Objective: To introduce the students to basic concepts of Anthropology and Archaeology & heritage & cultural tourism.			
Unit I	Anthropology		15
	<ul style="list-style-type: none"> • Anthropology: Definition, Concept, Scope. • Branches of Anthropology. • Study of Anthropology through archeology. 		
Unit II	Archeology		15
	<ul style="list-style-type: none"> • Definition and aims of archeology. • Branches of archeology. • Archeology and History, archeology and other sciences. · Field archeology, exploration, excavation and dating antiquities. 		
Unit III	Culture & Heritage tourism		15
	<ul style="list-style-type: none"> • Heritage tourism: Meaning, scope and importance of tourism. · Tourist resources with special reference to heritage monuments in Maharashtra (Gharapuri, Kanheri, Ajanta, Elora). • Forts and monuments as tourist resources in Maharashtra. 		
Course outcome: <ul style="list-style-type: none"> • The learner will get knowledge of branches & source of anthropology. • To study the basics of archeology, excavations & antiquities. • The learner will understand the importance of heritage/ culture & conservation of heritage. 			

Course Code	Course Title and Contents	Lectures	Credit Points
BNBUSHS4T2	Sex, Fertility and Psychosocial issues	45	2
Course objective :To study reproductive systems, hormone related sexual problems & create awareness about the sex related issues and problems			
Unit I	Reproductive systems	15	
	<ul style="list-style-type: none">Internal male reproductive systemExternal male reproductive systemAccessory sex glandsInternal female reproductive systemExternal female reproductive systemReproductive cycle		
Unit II	Sex Hormone related disorders & diseases	15	
	<ul style="list-style-type: none">HirsutismHermaphroditismInfertility- in male and femaleDisorder of Puberty- Precocious puberty & delayed pubertyMenstrual FailurePCODBreast cancerProstate cancer.		
Unit III	LGBTQ spectrum	15	
	<ul style="list-style-type: none">Sex, gender identity & sexual orientationLGBTQ+ communityTransgender, Third gender, lesbian, Gay.LGBTQ flags & symbolPsychosocial issues related to sex and fertility & acceptance.		
Course outcome: After studying this paper students should able to : <ul style="list-style-type: none">i. Educate themselves about sexuality and fertility.ii. Gain knowledge about sex hormone related disordersiii. Understand gender and sexuality in safer environment			

Course Code	Course Title and Contents	Lectures	Credit Points
BNBUSHS4T3	Biotechnology	45	2

Course Objective :To understand Biotechnological applications in agriculture, medicine, organ transplant and human genome study

Unit I	Genetically modified products.	15
	<ul style="list-style-type: none"> Genetic engineering: Application in agriculture (Nitrogen Fixation, GM crop, Bt cotton, yellow rice) ,transgenic animal Production and marketing of GM CROPS, BT PRODUCTS 	
Unit II	Application of biotechnology	15
	<ul style="list-style-type: none"> Application of Biotechnology in Pharmaceutical industry (production of hormone). Biomolecules of nutritional significance- Antioxidants (Bioflavonoid, phytochemicals, Lycopene, Anthocyanin). Applications of regenerative stem cells. 	
Unit III	Organ transplantation, Surrogacy & IVF	15
	<ul style="list-style-type: none"> Legal & ethical aspects of organ donation & transplantation Exploring the legality of In- Vitro Fertilization (IVF) Surrogacy & it's legal implications- Legal issues regarding to surrogacy across the world & Surrogacy in India 	

Course Outcome : After studying this paper students should able to :

- Genetically modified fruits vegetables & other related products.
- Learn applications of biotechnology
- Understand laws related to surrogacy, IVF & organ donation

Course Code	Course Title and Contents	Lectures	Credit Points
BNBUSHS4T4	Economics	45	4

Course objective: To familiarize the students with the basic concepts of Micro Economics, Economic theories and its application.

Unit I	Introduction to basic microeconomics	15
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	<ul style="list-style-type: none"> • Micro economics- Meaning-Definition- Features- Distinction between Micro Economics and Macro Economics. • Factors of Production - Meaning and Features of Land, Labour and Capital, Types of Capital, Entrepreneur Qualities and functions. 	
Unit II	Determinants of demand & supply	15
	<ul style="list-style-type: none"> • Concept of Demand- Types of Demand- Determinants of market demand- Law of Demand-Elasticity of Demand- Income, Cross & Promotional- Consumer Surplus- Demand forecasting Meaning of Total Output. • Stock and Supply- Supply of Individual Seller and Market Supply Determinants of Market Supply and Law Supply. 	
Unit III	Classification of markets	15
	<ul style="list-style-type: none"> • Forms of Market and Price Determination - Perfect • Competition - Price determination under perfect competition Monopoly- Meaning, Features and types Monopolistic Competition, Meaning and Features of Oligopoly. 	
Course outcome: After studying this paper students should able to : <ol style="list-style-type: none"> Differentiate between micro & macroeconomics Predict market demand, price of commodities, stock and supply, consumptions. 		

Course Code	Course Title and Contents	Lectures	Credit Points
BNBUSHS4T5	Economics and Psychology	45	4
<ul style="list-style-type: none"> • To introduce to basic concept of economics • To understand Cause of Social behaviour and thought 			
Unit I	History & advances in economics		15
	<ul style="list-style-type: none"> • Barter system: meaning, importance, advantages, disadvantages and types. • National income-meaning and definition, estimation of national income, difficulties. • Money- Meaning and Functions of Money, Supply of Money, Constituents of Money supply. Measures of Money Supply in India (including Liquidity Concepts). • Cryptocurrency 		

Unit II	Social Psychology - 1	15
	<ul style="list-style-type: none"> • Social Psychology: A working definition • Social Psychology : Scientific Nature • Focus on Individual Behaviour • Causes of Social Behaviour and Thought • Brief History of Social Psychology Social cognition: • Schemas: Mental Frameworks for organizing and using social information. • Heuristics • Automatic and controlled processing: basic modes of social thought. • Potential Sources of error in social cognition. • Affect and Cognition: how feelings shape thought and thought shapes feelings. 	
Unit III	Social Psychology - 2	15
	<p>Social Perception:</p> <ul style="list-style-type: none"> • Concept of Attribution • Theories of Attribution • Errors and Biases in Attribution • Impression Formation • Prosocial and Antisocial Behaviour • Concept of Prosocial Behaviour and related concepts • Bystander Effect • Determinants of Prosocial Behaviour • Theories of Altruism • Antisocial Behaviour • Interpersonal Attraction and close Relationship, Stereotyping, Prejudice, and Discrimination 	
<p>Course outcome: After studying this paper students should able to :</p> <ol style="list-style-type: none"> Understand technology of digital currency Understand the mental processes involved in the social behaviour Identify the social behaviour, and the causes for the same understand the nature and the science of social behaviour 		

S.Y.B.Sc. Elective Course

(Can be opted against any course of respective semester)

Objectives

Develop an understanding of transnational issues and trends across the East Asian region, thus deepening one's insight into both the intraregional dynamics and the region's linguistic, historical and current relationship to other parts of the world.

Cultivate the habit of thinking across disciplines—literary studies, film studies, art history, religious studies, linguistic studies, history, gender and ethnic studies and more—in order to achieve a comprehensive understanding of East Asian cultures and societies.

The world is changing too fast and young people must acquire an education that meets the contemporary setting's demands. Arts and culture form an integral part of far-reaching and competitive training.

Human Science (S.Y B.Sc) SEMESTER IV ART AND CULTURE OF Europe (PART1I)

Course code	Course Title & Contents	Credit Points	Lectures
BNBUSHS4E2	ART AND CULTURE OF Europe	02	45
Unit I :	BASICS OF ANCIENT ART AND LITERATURE 3.1(EI)BASIC OF ORIENTAL LITERATURE 3.2 Multiple cultural regions of Europe 3.3 Christianity, Judaism, Islam.		15
Unit II :	SULPTURE AND CULTURE OF EUROPIAN REGION Gothic Art : paintings, stained glass ,manuscript and print making Monumental sculpture. Byzantine art of the Eastern Roman Empire, folk music, folk lores		15
UNIT 3	TRADITION, RITUALS AND CONSERVATION POLICIES Corfu (Greece),Partita a Scacchi”, (Marostica, Italy),Easter whip(Slovakia, Czech), Ursul Bear dance, Caber Toss, Scotland, UK, other traditional festivals , fairs, death rituals, birth rituals		15
Out comes <ul style="list-style-type: none">➤ Express one’s opinions and perspectives on foreign or East Asian cultural texts in logical, articulate, and culturally aware language, both verbally and in writing.➤ Apply the above skills and knowledge in formulating an independent research project.➤ Learners employ the skills acquired in arts to perceive, interpret, and form different perspectives to examine and synthesize information.			

Semester IV : Practicals

Identification for all practicals should be shown with available models, photographs, Google images, diagrams from books whichever is available.

Course Code BNBUSHS4P1	Course Title PRACTICAL-I Reproductive system & biotechnology	Credits 02	Lectures
1.	T.S. of Ovary and testis, Menstrual cycle.		03
2.	Prostate cancer, Infertility disorders for structure of sperms.		03
3.	Breast cancer & polycystic ovary,		03
4.	Hirsutism, Hermaphroditism		03
5.	Transgenic animals (Dolly, Polly, Fish, Mouse, pig) Transgenic crops (Sweet Corn, Tomato, Cauliflower)		03
6.	Antioxidant and flavonoids – Blackberries, Cherries, Grapes, Broccoli, Spinach, Onion, Beetroot, Dark Chocolate, Green Tea.		03
7.	Methylene Blue Dye Reduction Test (MBRT) for assessing the raw milk quality		03
8.	Meat tenderization using Papain		03
9.	Isolation of organisms causing Food spoilage.		

Course Code BNBUSHS4P2	Course Title PRACTICAL-II Archaeology, economics & psychology	Credits 2	Lectures
1.	Antiquities from archaeological sites		03
2.	Excavation/Archaeological site		03
3.	Different currency -identification		03
4.	To study the bystander effect through case study and method		03
5.	Stroop Effect		03
6.	Short Term memory: Recognition and recall test.		03
7.	Identification of Hypothesis, Design and Variables		03
8.	Different methods to calculate National income.		03

9.	Monuments-Identification and location on map	03
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Course Code BNBUSHS4P3	Course Title PRACTICAL-III Project Submission and Presentation	Credits 02	Lectures
Following are suggestive projects. Projects of similar nature based/related to syllabus can be taken.			
1.	Visit to National/cooperative banks to study the management and present the report.	03	
2.	Visit to RBI/ SEBI to study the management and present the report.	03	
3.	Visit to WTO/NABARD/ Income Tax House to study the management and present the report	03	
4.	To study the International currencies and explain the exchange value.	03	
5.	Film review of heritage site and its presentation.	03	
6.	Feasibility report for entrepreneur activity.	03	
7.	Report of the actual entrepreneur activity performed.	03	
8.	To collect the data of LGBT related issues from print media and present the data	03	
9.	Interview entrepreneurs from different fields and present the report.	03	
10.	Survey organic products in the market and present the report..	03	

PRACTICAL EXAMINATION
PRACTICAL EXAMINATION
S.Y.B.Sc. Semester- IV

Code : BNBUSHS4P1
Duration: 3 Hrs Total Marks : 100

Q. I	Identify and describe	30 Marks
	a. T.S. of ovary /T.S of testis / Menstrual cycle b. Breast cancer /prostate cancer / polycystic ovary / structure of sperm. c. Hirsutism / Hermaphroditism	
Q. II	Perform	30 Marks
	Methylene Blue Dye Reduction Test (MBRT) for assessing the raw milk quality OR Meat tenderization using Papain OR Isolation of organisms causing Food spoilage.	
Q. III	Identify and describe any two from each group	20 Marks
	a. Antioxidants and flavonoid food sources: Blackberry / Cherry / Grapes / Capsicum / Onion / Spinach / Broccoli /Beetroot/Green Pea/Dark Chocolate). c. Transgenic animals --- Dolly/Polly/Fish/Mouse/Pig d. Transgenic crops---Sweet Corn/Tomato/Cauliflower	
Q. IV	Viva Voce	10 Marks
Q. V	Journal	10 Marks

PRACTICAL EXAMINATION
S. Y. B. Sc. Semester- IV
Code : BNBUSHS4P2
Duration: 3 Hrs Total Marks : 100

Q. I	Major experiment (<i>Any one of the following</i>)	30 Marks
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	a. Stroop Effect b. Short Term Memory: Recognition ,Recall test	
Q. II	Minor experiment	30 Marks
	Identify and Describe - Antiquities from Archeological sites (Any three)	
	OR	
	Show location on map and Describe - Excavation/ Archeological sites (Any Three)	
	Different methods to calculate national income	
	OR	
	Case study – To study bystander effect	
Q. III	Identify and describe	20 Marks
	a. Currencies from Different Nations -----Any Two b. Identify location on map and Describe ---- monuments (Any Two) c. Identification of Hypothesis, Design and Variables	
Q. IV	Viva Voce	10 Marks
Q. V	Journal	10 Marks

PRACTICAL EXAMINATION
S. Y. B. Sc. Semester- III
Code : BNBUSHS4P3

Duration: 3 Hrs Total Marks : 100

Q. I	*Project to be given from the suggestive topic given in the syllabi at the beginning of the semester. Evaluation to be done during practical examination.
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	Marks distribution for project	
	1. Identification and outline of problem	20
	2. Data Collection	30
	3. Report submission	20
	4. Presentation and viva	30

Reference Book
Semester III

Course code BNBUSHS3T1		Course Title Haematology, Immunology and Epidemiology			
Sr. No.	Title	Authors	Publisher	Edition	Year
1.	Human Physiology	CC Chaterjee	Central Book Agency	12 th edition vol I and Vol-II	2018
2.	Anatomy and Physiology	Seeley Stephen Tale	Mcgraw hill	2 nd edition	2011
3.	Principles of anatomy & physiology	Bryan H. Derrickson & Gerard J. Tortora	Wiley India Pvt. Ltd	15 th edition	2016
4.	Essentials in hematology and clinical pathology	K. Ramnarayan	Jaypee Brothers medical	2 nd edition	2017

5.	A textbook of Immunology	P. Madhavee latha	S. Chand		2016
6.	Essentials of Immunology	S.K.Gupta	Arya Publications	2 nd edition	2017
7.	Park's Textbook of Preventive & Social Medicine	K. Park		7 th edition	

Course code BNBUSHS3T2		Course Title Population studies			
Sr.No.	Title	Authors	Publisher	Edition	Year
1.	Cross-Cultural Psychology	John W. Berry, Ype Poortinga, Marshall H. Segall, Pierra Dasen	Cambridge	2nd edition	2002
2.	Demography & population studies	O.S. Shrivastava	Vikas publishing house	2nd edition	1994
3.	Principles of population studies	Asha A. Bhende, T5ara Kanitkar	Himalaya publication		2011
Course code BNBUSHS3T3		Course Title Psychology			
Sr.No.	Title	Authors	Publisher	Edition	Year
1.	Psychology	Saundra Ciccarelli, Glenn Mayer	Pearson	5th	2006
2	Psychology	David G. Mayer	Macmillan (customised for Mumbai university)	10th edition	2013
3.	Theories of Personality	Fiest, Fiest, Roberts	McGraw Hill	9th edition (Indian)	2018

Course code BNBUSHS3T4	Course Title Management and Organization – Structure and Functioning
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Sr.No.	Title	Authors	Publisher	Edition	Year
1.	Management – A competency building approach	HeilReigel / Jackson/ Slocum	-----	-----	-----
2.	Organizational Behaviour –	Stephen Robbins	-----	-----	-----
3.	Management Text & Cases (Excel Books)	V.S.P. Rao & V. Hari Krishna	-----	-----	-----
4.	Understanding Organizational Behavior	Udai Pareek	-----	-----	-----

Course code BNBUSHS3T5		Course Title Use of ICT, Internet security and Environmental Laws			
Sr.No.	Title	Authors	Publisher	Edition	Year
1.	Environmental Science. 2001	S.C. Santra	New Central Book Agency (P) Ltd.		2002
2.	Text book of Revised edition Environmental Chemistry & Pollution Control.	Dara S.S. & Mishra D.D	Publish. S. Chand.	Revised edition	
3.	Environmental Science.	Ahlluwalia V.K. & Malhotra Sunita	Ane Books India.		2006

Reference book
Semester 4

Course code BNBUSHS4T1		Course Title Anthropology and Archaeology			
Sr.No.	Title	Authors	Publisher	Edition	Year
1.	‘Anthropology’,	Ember & Ember	Pearson Prentice Hall of India Pvt.Ltd., New Delhi	12th edition	2008
2.	‘Social Anthropology’,	Evans-Prichard, E.E	Universal Book Stall, Delhi.		1990
3.	‘Cultural Anthropology’’,	Harris, Marvin	Harper & Row Pub, New York		1983
4.	‘Handbook of Social and Cultural Anthropology’,	Honigman J.	Rawat Publication, New Delhi.		1997
5.	Archaeological Survey of Western India,			Vol.I,IV and V.	1874, 1964 and 1970
6.	Approach to Archaeology	Piggot Stuart	Adams and Charles Black, London,		1959
7.	Archaeology (beginners guide)	Joe flatman	One world publications		2015
8.	India- & Archaeology history	Dilip chakrabarty	Oxford india paperbacks	2nd edition	
9.	Tourism Anand M.M., Tourism and Hotel Industry in India. Bhatia				

Course code BNBUSHS4T2		Course Title Sex, Fertility and Psychosocial issues			
Sr.No.	Title	Authors	Publisher	Edition	Year
1.	Human Physiology	CC Chaterjee	Central Book Agency	12 th edition vol I and Vol-II	2018
2.	Anatomy and Physiology	Seeley Stephen Tale	Mcgraw hill	2 nd edition	2011
3.	Principles of anatomy & physiology	Bryan H. Derrickson & Gerard J. Tortora	Wiley India Pvt. Ltd	15 th edition	2016
4.	Text book of heamatogy	Tejindar singh	APC books	3rd Edition	2017
5.	Practical book of Hematology	Girish Kamat	Japyee brothers medical publisher	1, Edition	2011
6.	Short textbook of haematology	B.S. Shah	CBS publisher & dist5ribut5ors	1st edition	2014

Course code BNBUSHS4T3		Course Title Biotechnology			
Sr.No.	Title	Authors	Publisher	Edition	Year
1.	Elements of Biotechnology	P.K. Gupta	Rastogi publication		2009
2.	Biotechnology Fundamental and Application	S.S . Purohit.	Agrobios (India)	4 th edition	2005
3.	Biotechnology	John Smith	Cambridge University Press		
4.	Principles and Practice of Assisted Reproductive Technology, Vol. 2, Lab. Aspects of IVF & Andrology, -	Kamini Rao.		Vol 2	
5.	Infertility Diagnosis, Management & IVF	Dr. Anil Dubey			2017
6.	Assisted Reproductive Technology (Regulation) Bill,				2020

Course code BNBUSHS4T4		Course Title Economics			
Sr.No.	Title	Authors	Publisher	Edition	Year
1.	Advanced economic theory	Ahuja H.L.	S. Chand and company		2005
2.	Micro economics : Theory and applications	Dwivedi, D.N	Pearson Education (Singapore) Pvt Ltd, Delhi		2003
3.	Modern economics	Koustsoyiannis	Macmillan Press Ltd. London		1980

Course code BNBUSHS4T5		Course Title Economics and Psychology			
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Sr.No.	Title	Authors	Publisher	Edition	Year
1.	Social Psychology	Robert A. Baron, Nyla R. Branscombe	Pearson	13th edition	2016
2.	Social Psychology	David G. Mayer		11th edition	1012
3.	Principles of social psychology	University of Minnesota	University of Minnesota libraries publishing		2015

Evaluation Scheme Internals

Class test	Certification of Swayam / Open university UK/ NPTEL in concern course	Presentation of any topic related to the course	Attendance & Leadership qualities	Total
20	10	05	05	40

Theory Examination : Suggested Format of Question paper
Duration : 2 Hours

Total Marks : 60

● All questions are compulsory

Q. 1	Answer <i>any two</i> of the following		16
	a	Based on Unit I	
	b	Based on Unit I	
	C	Based on Unit I	
Q. 2	Answer <i>any two</i> of the following		16
	A	Based on Unit II	
	B	Based on Unit II	
	C	Based on Unit II	
Q. 3	Answer <i>any two</i> of the following		16
	A	Based on Unit III	
	B	Based on Unit III	
	C	Based on Unit III	
Q. 4	Answer <i>any two</i> of the following		12
		Questions based on Unit 1-2-3	

** (4 questions of 8 marks each / 8 questions of 4 marks can be asked with 50% options)

Marks Distribution and Passing Criterion for Each Semester

Theory					Practical		
Course Code	Internal	Min marks for passing	Theory Examination	Min marks for passing	Course Code	Practical Examination	Min marks for passing
BNBUSHS3T1	40	16	60	24	BNBUSHS13P1	100	40
BNBUSHS3T2	40	16	60	24	BNBUSHS3P2	100	40
BNBUSHS3T3	40	16	60	24	BNBUSHS3P3	100	40
BNBUSHS3T4	40	16	60	24	-----	----	----
BNBUSHS3T5	40	16	60	24	-----	----	----

Theory	Practical
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Course Code	Internal	Min marks for passing	Theory Examination	Min marks for passing	Course Code	Practical Examination	Min marks for passing
BNBUSHS4T1	40	16	60	24	BNBUSHS4P1	100	40
BNBUSHS4T2	40	16	60	24	BNBUSHS4P2	100	40
BNBUSHS4T3	40	16	60	24	BNBUSHS4P3	100	40
BNBUSHS4T4	40	16	60	24	-----	----	----
BNBUSHS4T5	40	16	60	24	-----	----	----

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