



# ST. ALOYSIUS' COLLEGE

AUTONOMOUS  
JABALPUR- 482001  
MADHYA PRADESH, INDIA

## CRITERION-3

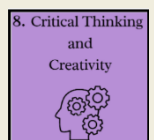
### RESEARCH, INNOVATIONS AND EXTENSION

Key Indicator – 3.1  
Innovation Ecosystem

Metric No.: 3.3.1

Ecosystem for Innovation, Creation and Transfer

Document Name  
Curriculum Integration







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## Theory Paper

Part A Introduction			
Program: Degree	Class: B.Sc.	Year: III	Session: 2023-24
<b>Subject: Botany</b>			
1.	Course Code	S3-BOTA2T	
2.	Course Title	Ethnobotany (Theory)	
3.	Course Type (Core Course/ Discipline Specific Elective/Elective/ Generic Elective /Vocational/....)	Minor	
4.	Pre-requisite (if any)	To study this course, a student must have had this subject in Diploma.	
5.	Course Learning outcomes (CLO)	<b>On successful com this course, the students will be able to:</b> 1. Understand the importance of plants and their relationship with Human being. 2. Explain how plants are a part of culture and traditions. 3. How traditional medicine can cure various diseases	
6.	Credit Value	4	
7.	Total Marks	* Marks: 30 + 70 Min. Passing Marks: 35	



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## Part B-Content of the Course

**Total No. of Lectures-60 Tutorials-0 Practical- 0 (in hours per week): L-T-P: 2-0-**

Unit	Topics	No. of Lectures
I	Ethnobotany Introduction, concept, scope and objectives; Ethnobotany as an interdisciplinary science. Various branches of Ethnobotany. The relevance of ethnobotany in the present context; Major and minor ethnic groups or Tribals of India, and their life styles.	12
II	Plants used by the tribals: a) Food plants b) intoxicants and beverages c) Resins and oils and miscellaneous uses. Plants in mythology, Taboos and totems in relation to plants, folklore and folktales, Wildlife protection tribals. Plants in similes and metaphors.	12
III	Medico-ethnobotanical sources in India; Significance of the following plants in ethno botanical practices (along with their habitat and morphology) a) <i>Azadiractha indica</i> b) <i>Ocimum sanctum</i> c) <i>Vitex negundo</i> . d) <i>Gloriosa superba</i> e) <i>Tinospora cordifolia</i> Batea monosperma g) <i>Cassia fistula</i> h) <i>Indigofera tinctoria</i> . Role of ethnobotany in modern medicine with special example <i>Rauwolfia serpentina</i> , <i>Terminalia arjuna</i> , <i>Artemisia</i> , <i>Withania</i> . Role of ethnic groups in conservation of plant genetic resources. Endangered taxa and forest management	12
IV	Ethnobotany and legal aspects. Ethnobotany as a tool to protect interests of ethnic groups. Sharing of wealth concept with few examples from India Biopiracy. Intellectual Property Rights and Traditional Knowledge. Role of Peoples Biodiversity Register (PBR) and Biodiversity Management committees(BMC).	12
V	Study of common Plants in Skin Diseases, Bronchial inflammation, Asthma, Jaundice, Malaria, Expulsion of Worms, Jaundice, Piles, Rheumatism, Heart Diseases, Amoebic Dysentery, leukoderma.	12

**Keywords/Tags: Ethnobotany, plants used by Tribals, Common Plants in curing Diseases, PBR**





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M.Sc. Zoology I Semester  
Session 2023-24  
CORE COURSE  
Paper-III  
Quantitative Biology, Biodiversity and Wildlife

## Unit I

MM: 40

- Central tendencies- mean, mode and median
- Measures of dispersion : range, mean deviation, standard deviation and coefficient of variation
- Chi-square test
- Normal distribution
- Experimental designing and sample method
- Basic mathematics for biologists wsr Matrices

## Unit II

- Probability: distribution, properties and probability theory
- Randomized block design.
- Analysis of Variance[ANOVA]
- Co-relation- types of correlation
- Analysis of Co-efficient of correlation
- Linear Regression.
- Elementary idea of Duncan's Multiple Range test (DMRT)

## Unit III

- Concept and principles of biodiversity
- Causes for the loss of biodiversity
- Biodiversity conservation methods wsr Ex-Situ and In- Situ Conservation.
- Intellectual property right (IPR) with special reference to India.
- Medicinal uses of forest plant (any five)
- Biodiversity hot spots.

## Unit IV

- Wildlife of India according to ecological zones
- Values of wildlife: positive and negative
- Wildlife protection Act and its major amendments
- Endangered and threatened species
- Wildlife corridors and wildlife translocation.
- Animal ethics- Introduction, concept, organizations and their functions

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## Unit V

- National Parks and Sanctuaries
- Biospheres Reserves
- Tiger Reserve and Project Tiger
- Project Gir Lion and Crocodile breeding project
- Wildlife in M.P. with references to Reptiles, Birds and Mammals
- Study of state bird – Paradise fly catcher (Dudhraj) and State Animal - Swamp Deer (Barasingha) - *Cervus duvaucelli*

## Suggested Reading Materials:

1. Batschelet, E. Introduction to mathematics for sitescientist springer-verlag,berling
2. Jorgenserr, S.E. Fundamental of Ecological modling E. sevier New York
3. Lenderen D. Modelling in behavioral ecology. Chapman & Hall London U.K.
4. Sokal, R.R. and F.J. Rohit Biometry Freeman San Francisco
5. Snedecor, G.W. and W.G. Cochran, Statistical methods, Affiliated East, West Press New Delhi (Indian ed.)
6. Muray, J.D. Mathematical Biology, Springer Verlag Berlin
7. Pelon, E.C. The interpretation of ecological data: A promer on classification and ordination.
8. Wild life management – Hossetti
9. A. Lewis. Biostatistics
10. B.K. Mahajan Methods in Biostatistics
11. V.B. Saharia wildlife in India
12. S.K. Tiwari wildlife in central India
13. J.D. Murrey Mathematical Biology
14. Georges & Wilians Startical method
15. R.K. Tandon Biodiversity Taxonomy & Ecology
16. M.P. Arora An Introduction to prevantology
17. P.C. Kotwal Biodiversity and conservation

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## St.Aloysius' College(Autonomous),Jabalpur(M.P.)

Course	M.Com	
Semester:	III	
Compulsory/Elective:	Compulsory	
Paper Title:	Entrepreneurship, Innovation & Start-ups	
Paper Code:	CC:303	
Max Marks	Theory	Internal Assessment
50	40	10

Unit1	Introduction to Entrepreneurship: Entrepreneurs, entrepreneurial personality and intentions, characteristics, traits and behavioral, entrepreneurial challenges. Entrepreneurial Opportunities: Opportunities, discovery/ creation, Pattern identification and recognition for venture creation: prototype and exemplar model, reverse engineering.
Unit2	Entrepreneurial Process and Decision Making: Entrepreneurial ecosystem, Ideation, development and exploitation of opportunities; Negotiation, decision making process and approaches. Effectuation and Causation.
Unit3	<b>Entrepreneurial Behaviour:</b> Innovation and Entrepreneurship, Social Responsibility. <b>Entrepreneurial Development Programme:</b> Entrepreneurial Development Programme relevance and achievements, role of Government in organising such programmes. Critical Evaluation.
Unit4	<b>Crafting business models and Lean Start-ups:</b> Introduction to business models; Creating value propositions-conventional industry logic, value innovation logic; customer focused innovation; building and analyzing business models; Business model canvas, Introduction to lean startups. Business Pitching.
Unit5	<b>Organizing Business and Entrepreneurial Finance:</b> Evolution of Organisation, sources and selection of venture finance options and its managerial implications. Policy Initiatives and focus: Role of institutions in promoting entrepreneurship.

### Suggested Readings:

1. Rabindra N Kanungo "Entrepreneurship and innovation", Sage Publications, New Delhi, 1998
2. Peter F Drucker, Innovation and Entrepreneurship
3. EDI "Faculty and External Experts- A Hand Book for New Entrepreneurs Publishers: Entrepreneurship Development Institute of India, Ahmadabad, 1986.



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## St.Aloysius' College(Autonomous),Jabalpur(M.P.)

Course		M.Com
Semester:		IV
Compulsory/Elective:		Elective
Paper Title:		Corporate Tax Planning
Paper Code:		TE:05
Max Marks	Theory	Internal Assessment
50	40	10

Unit1	Concept of Tax Planning: Meaning, Scope, Importance, Objectives of Tax Planning, Tax Avoidance, Tax Evasion, and Tax Planning
Unit2	Tax Management: Introduction, Difference between Tax Planning and Tax Management, Areas of Tax Management, Problems in tax planning.
Unit3	Scope of Tax Planning: Ownership Aspect, Activity Aspects & Locational Aspects, Nature of the Business & Tax Planning
Unit4	Special Tax Provisions for New Start-ups, Free Trade Zones, Infrastructure Sector & Backward Areas. Tax Incentives for Exporters. Tax Planning and Setting up New Business: Deductions Available to New Industrial Undertakings, Amalgamation, Merger and Tax Planning
Unit5	Financial Decisions Tax Planning: Capital Structure Decision, Inter Corporate Dividend, Bonus Shares, Purchase of Assets Out of Own Funds or Out of Borrowed Funds

### Suggested Readings:

1. Shripal Saklecha & Anit Saklecha-- Tax Planning and Management (Satish Printers and Publishers)
2. Dr RK Jain- Tax Planning and Management (SBPD Publication)





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M.Sc. Zoology III Semester  
Session 2023-24  
ELECTIVE COURSE  
Sericulture

Max M : 40

Unit-1	Introduction and Morigulture: 1. Historical background of sericulture, Scope of sericulture & Entrepreneurship in silk industry 2. Silk Producing organisms and types of silk. 3. Classification of races of <i>Bombyx mori</i> . 4. Life cycle of <i>Bombyx mori</i> 5. Propagation of Mulberry plant. 6. Process of Sericulture
Unit-2	Plant Pathology, silkworm diseases and Biology of <i>Bombyx mori</i> wsr: 1. Diseases of mulberry plant. 2. Diseases of silkworms wsr Pebrine (Protozoan disease), Bacterial, Fungal and Viral diseases 3. Silk gland of <i>Bombyx mori</i> . 4. Structure & chemical composition of silk.
Unit-3	Rearing facilities and operation wsr: 1. Rearing house and appliances for rearing of silk worms. 2. Disinfection operation before rearing of silk worms 3. Maintenance of optimum conditions for rearing. 4. Feeding, Bed cleaning and spacing
Unit-4	Moulting and Mounting wsr: 1. Moulting . 2. Care during Moulting of silk worm. 3. Characteristic features of ripe silk worm 4. Process of mounting of silk worm. 5. Process of spinning & harvesting of cocoons
Unit-5	Cocoon Marketing, Silk Reeling and Non-Mulberry Silk Worm wsr: 1. Cocoon Quality. 2. Testing and grading of cocoon. 3. Silk reeling operation. 4. Non-Mulberry Silk Worm culture wsr Tasar culture, Eri culture and Muga culture.

#### List of books for Sericulture:

1. Hand book of Silk Worm rearing by Masanori, Shimiza, D. Agri.
2. Sericulture Manual -2
3. Sericulture Manual -3 by S. Kishanaswamy
4. Introduction to Sericulture by Dr. ( Mrs.) G. Ganga Dr. (Mrs.) J. Sulochanachetty
5. Principles of Sericulture by Hisao Aruga
6. A Manual of non-mulberry Silks Sericulture Vol.-1 by Dr. M.S. Jolly. et al
7. Sericulture and Silk Industries by Tripurari Sharan
8. Sericulture Manual -1 Mulberry cultivation by Dr. G. Rang swami
9. Sericulture Manual -2 Silkworm rearing by Dr. S. Krishnaswami
10. Sericulture Manual -3 Silk reeling by Dr. S. Krishnaswami
11. Mulberry cultivation by Zheng, Ting-Zing
12. Silkworm rearing by Pva Pang- Chesan
13. Silk worm training manual by ScoHotim.

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## B.A/B.Sc. – III Year (Paper – II Minor/ Elective)

Course Title	Gender Economics
Course Code	A3-ECON2T
Course Type	Minor/ Elective
Credit Value	06
Max. Marks	100

Unit	Topics
<b>Unit-I</b> Introduction	<ol style="list-style-type: none"><li>1. Gender study- Concept, Objective, Nature and Scope</li><li>2. Importance of Gender study</li><li>3. Status of women in Indian society- From Early Vedic period to present</li><li>4. Role of Women Studies Centre- Recent trend in women's studies in India</li><li>5. Gender Equality- A Socio-economic need</li><li>6. Gender Inequality-Types, Causes and Effects</li><li>7. Vedic Teaching and women</li></ol>
<b>Unit- II</b> Women Demography and Health	<ol style="list-style-type: none"><li>1.Characteristics of Women Demography</li><li>2. Population of Girl Child and Age structure</li><li>3.Sex Ratio and Fertility- Causes of declining sex ratio and fertility rate in India</li><li>4.Theories and measurement of fertility and its control</li><li>5. Health status of women- Social, economic and cultural factors influencing health</li><li>6.Gender bias and poor health-Health care system</li><li>7.Role of Education in the upliftment in the women's status in India</li><li>8.Brief life sketch and Economics of thought of dominant Indian women<ol style="list-style-type: none"><li>8.1 Maitreyi</li><li>8.2 Gargi</li><li>8.3 Lopamudra</li><li>8.4 Rani Laxmibai</li><li>8.5 Kittur Chenamma</li><li>8.6 Rani Kamlapati</li></ol></li></ol>



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	8.7 Rani Durgawati 8.8 Joymoti Konwari 8.9 Ahilayabai Holkar
<b>Unit-III</b> Women and Development	1. Participation of Women in Indian Society- Agriculture, Industries, services and others 2. Concept and evaluation of Home management 3. Female work participation in organized and unorganized sector 4. Women in labour market- discrepancy in work and wages 5. Impact of technological development and modernization on women's work participation in various sectors 6. Contribution of women in National Income 7. Concept of Gender Development Index (GDI) and Gender Gap Index (GGI) 8. Gender issues and Sustainable Development Goals
<b>Unit-IV</b> Women Empowerment	1. Women Empowerment- Concept and Need and Challenges 2. National policies for the Empowerment of women 3. Women's activities and ecological and environmental concerns 4. Democratic Decentralization and Women's Empowerment in India 5. Role of Self Help Groups and voluntary organisations in Women Empowerment 6. Welfare schemes for Women Empowerment 6.1 Indira Awas Yojana 6.2 MNREGA 6.3 Mudra Yojana 6.4 Make in India 6.5 Startup India 6.6 Atmanirbhar Yojana 6.7 <b>Beti Bachao Beti Padhao</b> Scheme
<b>Unit-V</b> Women and Entrepreneurship	1. <b>Women Entrepreneurship- Concept, Need and Importance</b> 2. Small Industries Development Bank of India (SIDBI) 3. Indian Institute of Entrepreneurship (IIE) 4. <b>Role of women in economic decision making and control</b> 5. Gender Budgeting 6. National Commission for Women