



GOVT. MADHAV SCIENCE COLLEGE, UJJAIN A GRADE ACCREDITED THROUGH NAAC DST-FIST SUPPORTED AFFILIATED TO VIKRAM UNIVERSTY UJJAIN IN FRONT OF POLYTECHNIC COLLEGE DEWAS ROAD, UJJAIN



Courses Addressing the cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum.

S. No.	Name of Programme	Papers	Issue Addressed
1.	M.Sc. Chemistry	1. Environmental Chemistry	Environment and Sustainability
2.	M.Sc. Zoology	<ol> <li>Environmental Limiting Factors</li> <li>Environmental Sustainability Development</li> <li>Environmental Monitoring and Impact Assessment</li> </ol>	Environment and Sustainability
3.	M.Sc. Microbiology	<ol> <li>Biosafety , Bioethics and Other Issues (I)</li> <li>Biosafety , Bioethics and Other Issues (II)</li> </ol>	Environment and Sustainability
4.	M.Sc. Drugs and Pharmaceutical Chemistry	<ol> <li>Introduction to pharmacy , Drug Regulatory Act, Intellectual Property Right Paper101</li> </ol>	Human Values and Professional Ethics
5.	M.Sc. Botany	<ol> <li>Ecology and Environment</li> <li>Ecosystem Development and sustainability</li> <li>Utilization &amp; Conservation of Plant Resources</li> </ol>	Environment and Sustainability
6.	B.Sc. Biotechnology	1. Environmental Biotechnology	Environment and Sustainability
7.	B.Sc. Botany	<ol> <li>Diversity of Lower Plants</li> <li>Diversity of Higher Plants</li> </ol>	Environment and Sustainability
8.	B.Sc. Foundation Courses	<ol> <li>Hindi Language and Moral Values</li> <li>English Language</li> <li>Entrepreneurship Development</li> </ol>	Human Values and Professional Ethics
9.	Ph. D. Programme	<ol> <li>Synthesis and Characterization of Nano Structured Phorocatalyst</li> </ol>	Environment and Sustainability





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	ZnO and Its Application in	
	Complete Mineralization	
	of Calmagite, Xylenol	
	Orange, Fast Green,	
	Perarosaniline, Azure A,	
	And Brilliant Cresyl Blue	
	Dyes Using Visible Light	
2.	Photocatalytic	
	Degradation of Calmagite,	
	Orange II, Toludine Blue ,	
	Azure B and Methylene	
	Violet Dyes in Presence of	
	Solar Light Utilizing as-	
	prepared NANO BiOCI.	
3.	Synthesis,	
0.	Characterization and	
	Application of	
	Nanostructured ZnO for	
	the Photocatalytic	
	Degradation of Malachite	
	Green, Methylene Green,	
	Direct Blue –I, Orange II,	
	Acridine Orange and	
	Neutral Red Dyes in the	
	Presence of Visible Light.	
л	•	
4.	Solar Light Assisted	
	Photocatalytic	
	Degradation of methomy.	
	Oxamyl, Carbofuran.	
	Carbaryl and Propoxur	
	Pesticides Using Flower	
	like Nano BiOCl.	





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# Session 2015-16

#### Scheme of Marks

M.Sc. Chemistry

### SEMESTER-III

Paper	Comp/Opt	Paper Title	Code	Max.Marks
I	Compulsory	APPLICATION OF SPECTROSCOPY-I	MCH-501	40+10 (CCE)=50
п	Compulsory	PHOTOCHEMISTRY	MCH-502	40+10 (CCE)=50
ш	Compulsory	ENVIRONMENTAL CHEMISTRY	MCH-503	40+10 (CCE)=50
v	Optional -I Optional -II	ANY TWO Organotransition Metal Chemistry Polymers Heterocyclic Chemistry Physical Organic Chemistry Chemistry of Materials	MCH- 504-508	40+10 (CCE)=50 40+10 (CCE)=50
Practical		Inorganic Organic Physical	33 33 34	100
			Grand Total	350

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#### Department of Higher Education, Govt. of M.P. Post Graduate Semester wise Syllabus as recommended by Central Board of Studies and approved by the Governor of M.P. उच्च शिक्षा विभाग, म.प्र. शासन स्नातकोत्तर कक्षाओं के लिये सेमेस्टर अनुसार पाउ्यकम केंद्रीय अध्ययन मण्डल द्वारा अनुशंसित तथा म. प्र. के राज्यपाल द्वारा अनुमोदित Session - 2010-2011

#### Theory / Practical

Session		2010-2011	
Class		M.Sc.	
Semester		IV	
	(English)	Zoology	
Subject	lfgUnh		
Paper		IV(d) (Optional)	
Title of the	(English)	Environment & Biodiversity Conservatio	
paper	liguni		
Medium of instructions (Teaching)		English / fgUnh / Both inkulth	
Question Paper Language		English / fgunh / Both inkuts	
Max. Marks			

Unit I(English)Basic concept of Environmental Biology Scope and Environmental Science Biosphere and Biogeochemical cycles. Environmental monitoring and impact assessment. Environmental and sustainable development. Water conservation, rain water harvesting, water shed management.Unit II(English)Cause, effects and remedial measure of Air pollution, Water pollution. Noise. radioactive and thermal pollution. Basic concepts of Bioaccumulation. Solid waster management.Unit III(English)Global warming Impact of global warming Impact of global warming	Unit		Syllabus	Perio ds
Unit II       (English)       pollution, Water pollution.         Unit II       (English)       • Noise. radioactive and thermal pollution.         • Agriculture pollution       • Basic concepts of Bioaccumulation.         • Solid waste management.       • Global warming and disaster management         • Unit III       (English)       • Impact of global warming – acid rains and ozone depletion, green house effect.         • Control measures of global warming       • Control measures of global warming	Unit I	(English)	<ul> <li>Scope and Environmental Science</li> <li>Biosphere and Biogeochemical cycles.</li> <li>Environmental monitoring and impact assessment.</li> <li>Environmental and sustainable development.</li> <li>Water conservation, rain water harvesting, water</li> </ul>	
<ul> <li>Cause of global warming</li> <li>Impact of global warming – acid rains and ozone depletion, green house effect.</li> <li>Control measures of global warming</li> </ul>	Unit II	(English)	<ul> <li>pollution, Water pollution.</li> <li>Noise. radioactive and thermal pollution.</li> <li>Agriculture pollution</li> <li>Basic concepts of Bioaccumulation.</li> </ul>	
(a) Altorestation (b) reduction in the use of CFCS	Unit III	(English)	<ul> <li>Cause of global warming</li> <li>Impact of global warming – acid rains and ozone depletion, green house effect.</li> <li>Control measures of global warming <ul> <li>(a) Afforestation</li> <li>(b) reduction in the use of</li> </ul> </li> </ul>	





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#### 0 0. Department of Higher education, Govt. of M.P. 0 Semester wise Syllabus for Postgraduates As recommended by Central board of Studies and 0 Approved by HE the Governor of M.P. ۲ Session : 08-09 0 M. Sc. Previous Ô., Zoology 0 Semester II Paper II a, Population Ecology and Environmental physiology Unit I 9 1. Populations and their characters. 00 2. Demography : Life tables, generation time, reproductive value. 3. Population growth: Growth of organisms with non-overlapping 0 AS generations, stochastic and time lag models of population growth, 9) stable age distribution. 0 4. Population regulation: Extrinsic and intrinsic mechanisms. Unit II 00 1. Adaptations : Levels of adaptions, significance of body size. 0 0 2. Aquatic environments : Fresh water, marine, shores and estuarine KS environments. 3. Eco-physiological adaptations to fresh water environments. 0 4. Eco-physiological adaptations to marine environments. 5. Eco-physiological adaptations to terrestrial environments. On Unit III 1. Environmental limiting factors. Q. 2. Inter and intra-specific relationship. 0 $\aleph^{5}$ 3. Predatory- prey relationship, predator dynamics, optimal foraging theory 0 (patch choice, diet choice, prey selectivity, foraging time). 4. Mutulism, evolution of plant pollinator interaction. 0, Unit IV 0 Environmental poliution and human health. RS 1. Conservation management of natural resources . 0 2. Environmental impact assessment. 3. Sustainable development. Milan 0 lote 0 Ø, , 0





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## M.Sc. Semester IV (II year)

#### PAPER: II Applied Microbiology

(MM-40)

- UNIT: 1 Forensic Microbiology
  - Forensic Science: Recent Advances & Modern Trends Introduction & working of various Wings of Forensic Science Laboratory. Immunology, Examination of Biological Trace material Evidence. Ballistics Identification. Crime Laboratory, Forensic Photography.
  - 2. DNA & Finger Print System, Lie Detector & Polygraph, Norco-analysis (Basics). National Health policies. Injury, Inflammation, Repair, Thrombus-Embolism, Shock, Gross.
  - 3. Microscopic Appearances of Vital Organs and histopathology in cases of sudden death e.g. Myocardial infarctions and other related diseases e.g, which can cause sudden death by complications e.g. tuberculosis, renal failure etc.& Endocrines Important Staining techniques, Insulin, Observation-Collection-Preservation & Forwarding of Pathological & Microbial Evidence.

#### UNIT: 2 Nano-Technology (Basics)

- Introduction to Bio-macromolecules: The modern concepts to describe the conformation and dynamics of biological macromolecules: scattering techniques, micromanipulation techniques, drug delivery applications etc.
- 2. Chemical, physical and biological properties of biomaterials (Proteins, DNA and polysaccharides) and bio-response: bio-mineralization.
- Nanoparticular carrier systems; Micro- and Nano-fluidics; Drug and gene delivery system; Microfabrication, Biosensors, Chip technologies, Nano- imaging, Metabolic engineering and Gene therapy.

#### UNIT: 3 Biosafety, Bioethics, and other issue (I)

- Introduction to Bioethics and Biosafety, Human Genome Project and its Ethical Issues. Molecular Detection of Pre-Symptomatic Genetic Diseases and its Importance in Healthcare. Prenatal Diagnosis, Genetic Manipulations and their Ethical Issues.
- Biosafety Guidelines and Regulations. Legal and Socio-economic Impacts of Biotechnology. Use of Genetically Modified Organisms and their Release in the Environment. Hazardous Materials used in Biotechnology their Handling and Disposal. Good Laboratory Practice (GLP) and Good Manufacturing Practice (GMP). Public Education of Producing Transgenic Organisms.

#### UNiT: 4 Biosafety, Bioethics, and other issue (II)

- Intellectual Property Rights and Agricultural Technology, and their Implications for India and other Developing Countries. International Organizations and Intellectual Property Rights. Introduction to Patent and Process Involved in Patenting. Patenting Living Organisms. Traditional Knowledge, Commercial Exploitation, and Protection.
- Bioethics in Biodiversity and Resource Management. Ethical Issues in Genetically Modified Organisms: Foods and Crops. Labeling of Genetically Modified Food and Crops. Stem Cell Research, Ethical Issues Involved in Stem Cell Research and Use. Use of Animals in Research and Testing, and Alternatives for Animals in Research.

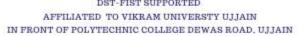
#### **UNIT: 5 Mushroom, Vermicompost and Biofertilizer**

- 1. Mushroom Cultivation
- 2. Vermicomposting
- 3. Biofertilizer





### GOVT. MADHAV SCIENCE COLLEGE, UJJAIN A GRADE ACCREDITED THROUGH NAAC DST-FIST SUPPORTED





#### Department of Higher Education, Govt. of M.P.

Post graduate semester wise syllabus As recommended by Central Board of studies and approved by the governor of M. P. उच्च शिक्षा विभाग, সध्यप्रदेश शासन

स्नातकोत्तर कक्षाओं के लिए सेमेस्टर अन्सार पाठ्यक्रम

केन्द्रीय अध्ययन मण्डल द्वारा अनुशंसित तथा म. प्र. के राज्यपाल द्वारा अनुमोदित

Session ( सत्र ) - 2015-16 Scheme of Marks M. Sc. Drugs and Pharmaceutical Chemistry

SEMESTER- I

Paper	Comp/Opt	Paper Title	Code (MCH)	Max. Marks
I	Compulsory	Introduction to Pharmacy, Drug Regulatory Act, Intellectual Property Rights	PC-101	40+10 (CCE) = 50
II	Compulsory	Pharmaceutical Chemistry & Biochemistry	PC-102	40+10 (CCE) = 50
[]]	Compulsory	Principles of Organic Pharmaceutical Chemistry	PC-103	40+10 (CCE) = 50
IV	Compulsory	Principles of Physical Pharmacy – I	PC-104	40+10 (CCE) = 50
V	Optional- 1	Mathematics and statistics for chemists (for biology background students)	PC -105 (a)	40+10 (CCE) = 50
VI	Optional- 2	Biology for chemists (for mathematics background students)	PC -105 (b)	40+10 (CCE) = 50
		PRACITICAL 1.		50
		PRACTICAL 2.		50
		TOTAL		400

#### M. Sc. Drugs and Poarmaceutical Chemistry SENERSTER, H. 2016 - 17

Paper	Comp/Opt	Paperfitte	Code (MCH)	Max. Marks
1	Compulsory	Principles of Inorganic Pharmaceutical Chemistry –1	PC-201	40+10 (CCE) = 50
11	Compulsory	Pharmaceutical Analysis -I	PC-202	40+10 (CCE) = 50
111	Compulsory	Pharmaceutical Analysis - Ii	PC -203	40+10 (CCE) = 50
IV	Compulsory	Principles of Physical Pharmacy -11	PC-204	40+10 (CCE) = 50
v	Optional-1	Computers For Chemists	PC - 205	40+10 (CCE) = 50
7		PRACHCAL 1.		50
		PRACTICAL 2.		50
		TOTAL		A 400

Thomas Earle

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Department of Higher Education, Govt. of M.P. Semester wise syllabus for Postgraduates As recommended by Central Board of Studies and Approved by H.E. the Governor of M.P <u>Session 2008-09</u>

## M. Sc. Botany (Semester System)

## First Semester Course PG 104: Plant Ecology

			1.10		
vی UNIT II: ۲۳	Population Ecology: Ecolog components, Population & Er Natality, Mortality, Survivorshi schedules, Life tables; Popula specific competition and self r Community organization: Co community analytical and syn of diversity, interspecific assoc	vironment; P ip curves, Age ation growth – regulation; r-a oncepts of co thetic charact clation negati	epulation ecology estructure & pyra exponential and nd k-strategists. mmunity and con ers, Community of ye and positive as	v, denšity & distribution, mids; Fecundity logistic curves; Intra tinuum; Analysis of coefficients and indices spociations; Concent of	
	ecological niche; Concepts of allopatric & sypatric speciation Ecosystem development an	biodiversity; end sind	evolution and differences.	erentiation of species -	
17 15	Succession processes & types inhibition models; Concept of Ecological perturbation natura	s; Mechanism climax persist	of succession fa	cilitation, Tolerance and	· • ·
UNIT IV:I インマー・ハ F	Fate of energy in ecosystem webs; energy flow pathways, E production trophic; Primary pro Limiting factors.	s: Trophic or cological effi	ganization and st ciencies consum	ructure, Food chains & ption, assimilation and	
UNIT V: I	Fate of matter in ecosystem flow and recycling pathways; N cycles of C, N, P and S; Physic	<b>Nutrient</b> excha	nge and cycling;	Global biogeochemical	
Suggest	ed Readings				
	L. 1996. Ecology and Field Bi	ology Harper	Colline New You	-14	
Muller-Do	ombois. D. and Ellenberg. H.1	974 Aims and	Methods 01 Ve	netation Ecology Willow	
New York	<			gotation Loology, whey,	
Ludwig. J Odum. E.	I., Harper, J.L. and Townsend, I. and Reynolds. J.F. 1988. Sta .P. 1971. Fundamentals of Eco	atistical Ecolo ology. Saunde	gy. John Wiley & ers, Philadelphia.	Sons.	
;Barbour,	P. 1983. Basic Ecology. Saun M.G., Burk, J.H. and Pitts, W. on Company, California.	ders, Philade .O. 1987. Ter	lphia. restrial Plant Eco	logy. Cummings	
. Kormond Chapman	ly, E.J. 1996. Concepts of Eco , J.L. and Reiss, M.J. 1988. E Press, Cambridge, U.K.	ology. Prentice cology: Princi	-Hall of India Pv ples and Applica	t. Ltd., New Delhi. tions. t::ambridge	
Moldan, E	B. and Billharz, S. 1997. Stors, New York.	ustainability I	ndicators. John		
	6	6 of 23			





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Vikram University, Ujjain

# M. Sc. Botany IV Semester (403)

#### Syllabus

#### Elective Paper : Environmental Science

UNIT-1 ECOLOGY and ENVIRONMENT : History and scope of ecology, autecoloty, synecology, population, community, biome. Distinguishing characters of forests, grazzlands, arid lands and wetlands; community organisation – concept of habitat, key stone species, dominant species. Species diversity and measurement of diversity. Biological communities and ecosystem, Bioelement cycling.

UNIT-2 NATURAL ENVIRONMENTAL RESOURCES AND CONSERVATION : Forest Resources- Forest Types of India, deforestation and its effects; Water Resources-Indian water resources, hydrological cycle, surface water, ground water, World water resources, distribution: Food Resources; Conservation of natural resources and environmental management.

UNIT-3 CURRENT ENVIRONMENTAL ISSUES : Climate change- Global Warming, Greenhouse Effect and Global Ozone Problems, Acid Rain, Atmosphere Purbidity and Nuclear Winter, Global Carbon Dioxide-rise and impact on Biosphere; Air, water and noice Pollution; Radiation hazards and environmental degradation.

UNIT-4 ENERGY PRODUCTION AND MANAGEMENT : Introduction, Energy Production and Consumption, sources of energy, Non-Conventional and Biological Energy; use of wastes and energy use pattern in India; Future energy scenario of the World Nuclear energy and the risks

UNIT-5 ENVIRONMENTAL BIOTECHNOLOGY : Basic techniques in genetic engineering: Nucleic acid hybridisation and polymerase chain reaction as sensitive detection methods. Use of micro-organisms like thermophiles, alkalophiles; acidophiles; halophiles and psychrophiles in waste treatment and methane production; production of enzymes like cellulise, protegies, amylases; alcohol and acetic acid production.





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Department of Higher Education, Govt. of M.P. Semester wise syllabus for Postgraduates As recommended by Central Board of Studies and Approved by H.E. the Governor of M.P Session 2008-09 M. Sc. Botany (Semester System) Second Semester Course PG 203: Utilization & Conservation of Plant Resources PD UNIT I: Plant Biodiversity: Major Biomes of the world, Tropical rain & Seasonal Forests, Temperate rain & Seasonal forests, Boreal forests, Grasslands, Deserts; Aquatic Ecosystems, wetlands, Lakes & Ponds Streams & Rivers, Marine & Estuarine UNIT II: Sustainable Development: Resource utilization; Status & Utilization of Biodiversity; Sustainable development and utilization of resources from forest, Grassland and aquatic habitats; Food forage, Fodder, Timber & Non-wood forest products; Threats to quality & quantity of Resources due to overexploitation. UNITIII: Strategies for conservation of resources: Classifications of resources; Principles of conservation; In-situ conservation, sanctuaries, National parks, Biosphere reserves for wildlife conservation; Habitat conservation practices of conservation for forests, ranges, soil and water; Ex-situ conservation, botanical gardens, field gene banks, seed banks, in vitro repositories, cryo-banks. UNIT IV: Pollution & Climate Change: Air, Water and Soil pollution, Kinds, Sources, Quality parameters, Effects on structure & function of ecosystems; Management of pollution; mg Bioremediation; Climate changes sources, Trends & role of greenhouse gases, Effect of global warming on climate, Ecosystem processes & Biodiversity; Ozone UNIT V: Resource monitoring: Remote sensing concepts & Tools, Satellite remote sensing basics sensors, Visual & digital interpretation, EMR bands and their applications; Indian remote sensing program; Thematic mapping of resources; Application of remote sensing in Ecology & Forestry. Suggested Readings Moldan, B. and Billharz, S. 1997. Sustainability Indicators. John Wiley & Sons, New York. Treshow. M. 1985. Air Pollution and Plant Life. Wiley Interscience. Heywood, V.H. and Watson. R.T. 1995. Global Biodiversity Assessment. Cambridge Mason, C.F. 1991. Biology of Freshwater Pollution. Longman. ' Hill. M.K. 1997. Understanding Environmental Pollution. Cambridge University Press. Brady, N.C. 1990. The Nature and Properties of Soils. MacMillan. Kothari, A 1997. Understanding Biodiversity: Life'Sustainability and Equity. Orient Kohli, R., Arya, K.S., Singh, P.H. and Dhillon, H.S. 1994. Tree Directory of Chandigarh. Lovedale Educational, New Delhi.

Nair, M.N.B. et. al (Eds) 1998. Sustainable Management of Non-wood Forest Products. Faculty of Forestry, Universiti Putra Malaysia. 434004 PM Serdong, Selangor, Malaysia.





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B.Sc. Brotechnology Annual Examination Pattern - 2019-2020 13

Types of fermentors- Fluidized, Packed Bed, Air lift Fermentor, Tray Fermentor and Tower Fermentor.

#### Unit-V: Environment Biotechnology

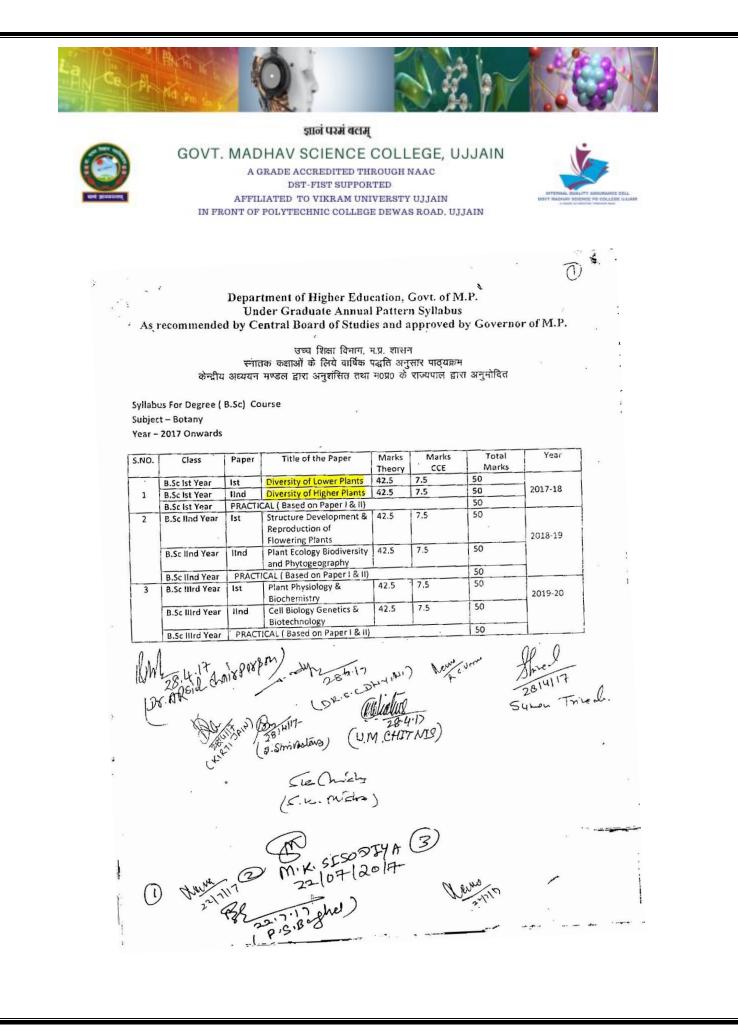
Environment: Basic concept, Significance, Public awareness, Environmental pollution, Assessment of water quality, Treatment of waste-water - Primary, secondary and tertiary treatment. Solid waste management (composting, vermi-composting, methane production). Biopesticides- Bacterial and Fungal, Genetically modified crops, Biofertilizers - Nitrogen fixers, PSB, Mycorrhiza and VAM, Microbial leaching, Microbial Enhanced Oil Recovery. Bioremediation and Biodeterioration. Modern fuels- Methanogenic bacteria and biogas, microbial hydrogen production.

Prof Dr. H.S.RATHORE Faculty of Life Sciences Vikram University, UJJAIN, 456 010, India

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Jouralune Collabor

Professor & Head Department of Zoology vt. Madhav Vigyan Mahavidyalaya Highin







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Department of Higher Education, Govt. of M. P. Syllabus For Under Graduate Annual Exam Pattern As recommended by Central Board of Studies and Approved by the Governor of M.P. With effect from : 2019-2020

Class : B.A/B.Sc./B.Com/B.Sc (Home Science ) B.A (Mgt.) BCA Year : I Subject : Foundation Course Paper Name : English Language Paper : II Compulsory/Optional : Compulsory

Max. Marks: 30+ Internal assessment (5)=35

Note : Max.Marks for Private Students shall be 35.

Particulars

# UNIT-1

- 1 Where the Mind is Without Fear :Rabindranath Tagore
- 2 The Hero : R.K. Narayan
- 3 Tryst with Destiny : Jawaharlal Nehru
- 4 The Portrait of a Lady : Khushwant Singh
- 5 The Solitary Reaner William Wordsworth





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Department of Higher Education ,Govt. Of M.P.

# Under Graduate year wise syllabus

As recommended by central board of studies and approved by the government of M.P.

Class- B.A./ B.com./ B.Sc. (Home Science) 1 Year

Subject - Foundation course

Session - 2019-2020

# Paper -3 Enterprenuership Development

Unit - 1 Enterpenuership Development – Concept and importance, function of Enterprisar, Goal determination – Problem Challenges and solutions.

Unit - 2 Project proposal -Need and Objects - Nature Of organisation Production Management.

Unit - 3 Role of regulatory Institutions, Role of development Organisations,

- 1. संपना का उड़ान (प्रश्क ानबंध)— ए.पा.ण. अब्दुल कलान
- हमारा सौरमण्डल (संकलित)
- प्रमुख वैज्ञानिक आविष्कार (संकलित)
- 4. समास (संकलित)

Unit-5 हिन्दी भाषा 1. शिकागो व्याख्यान (व्याख्यान)-स्वामी विवेकानंद 2. धर्म और राष्ट्रवाद - (लेख)- महर्षि अरविन्द 2049 ार्ट ( कार





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# Department of Higher Education ,Govt. Of M.P.

# Under Graduate year wise syllabus

As recommended by central board of studies and approved by the government of M.P.

Class- B.A./ B.com./ B.Sc. (Home Science) 1 Year

Subject - Foundation course

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# Paper -3 Enterprenuership Development

Unit - 1 Enterpenuership Development – Concept and importance, function of Enterprisar, Goal determination – Problem Challenges and solutions.

Unit - 2 Project proposal -Need and Objects - Nature Of organisation Production Management.

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श्रीमती सुनैना चौहान,	संकाय–विज्ञान	
Smt. SUNAINA CHOUHAN, पिता का नाम- श्री भावलाल चौहान, माता का नाम-श्रीमती कौशल्या चौहान (निर्देशक-डॉ. ब्रजेश पारे) (मौ. सं. दि. 16-08-2018) (कुलपति द्वारा अनुगोदित दिनांक 31-08-2018) En-NoV12R548040015	रसायन Chemistry (विज्ञान) Science शोध केन्द्र–शासकीय माधव विज्ञान महाविद्यालय, उज्जैन	"SYNTHESIS AND CHARACTERIZATION OF NANO STRUCTURED PHOTOCÀTALYST ZNO AND ITS APPLICATION IN COMPLETE MINERALIZATION OF CALMAGITE, XYLENOL ORANGE, FAST GREEN, PERAROSANILINE, AZURE A, AND BRILLIANT CRESYL BLUE DYES USING VISIBLE LIGHT "सिन्धेसीस एण्ड कैरेक्टराईजेन ऑफ नैनो स्ट्राक्करड फोटोकैटालिस्ट जेड एन ओ एण्ड इट्स एव्लीकेशन इन कप्पलीट मिनरालाईजेशन ऑफ कैलेमाजाईट . जाईलीनॉल आरेंज, फास्ट ग्रीन, पेरारोजल्नीलीन, एंजयूर ए एण्ड ब्रिलीयन्ट किसायल ब्लू डाइज यूसींग विजीबल लाईट "
कु. वैशाली जोशी, Ku. VAISHALI JOSHI, पिता का नाम- श्री शिवनारायण जोशी, माता का नाम-श्रीमती कृष्णा जोशी (निर्देशक-डॉ. ब्रजेश पारे) (मौ. सं. दि. 24-08-2018) (कुलपति द्वारा अनुमोदित दिनांक 31-08-2018) En-NoV12R546050018	रसायन Chemistry (विज्ञान) Science शोध केन्द्र–शासकीय माधव विज्ञान महाविद्यालय, उज्जैन	" PHOTOCATALYTIC DEGRADATION OF CALMAGITE,ORANGE II,TOLUIDINE BLUE,AZURE B AND METHYLENE VIOLET DYES IN PRESENCE OF SOLAR LIGHT UTILIZING AS-PREPARED NANO BiOCI "कोटोकेटेलाइटिक डिग्रेडेशन ऑफ केल्माजाइट आरेज-II , टालूइडीन ब्लू, एज्यूर बी एंड मिथाइलीन बाइलेट डाइस इन प्रेसेस ऑफ सोलर लाईट यूटीलाईजिंग एस–प्रीपेयर्ड नेनो BiOCI "
VEER SINGH BARDE, पिता का नाम- श्री बासरिया बरडे, माता का नाम-श्रीमती सायबी बाई बरडे (निर्देशक-डॉ. ब्रजेश पारे)	रसायन Chemistry (विज्ञान) Science शोध केन्द्र–शासकीय माधव विज्ञान महाविद्यालय, उज्जैन	SYNTHESIS, CHARACTERIZATION AND APPLICATION OF NANOSTRUCTURED ZnO FOR THE PHOTOCATALYTIC DEGRADATION OF MALACHITE GREEN, METHYLENE GREEN, DIRECT BLUE-1, ORANGE II, ACRIDINE ORANGE AND NEUTRAL RED DYES IN THE PRESENCE OF VISIBLE LIGHT "सेन्थेसिस कैरेक्टराइजेशन एण्ड एप्लीकेशन ऑफ नैनोस्ट्रक्यरड जेड एन ओ फॉर द फोटोकेटेलाईटिट डिग्रेडेशन ऑफ मैलाकाइट ग्रीन मिथाइलिन ग्रीन डाइरेक्ट ब्लू फस्ट, ओरेज सेकेण्ड, एकिडिन ओरें एण्ड न्यूट्रल रेड डाईस इन द प्रेजेन्स ऑफ विजिन लाईट "





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111111 199111 4 श्री सतीश पिपलोदे." रसायन SOLAR LIGHT ASSISTED Shri. SATISH PIPLODE, PHOTOCATALYTIC Chemistry पिता का नाम- श्री खुम सिंह पिपलोदे. DEGRADATION OF METHOMYL, (विज्ञान) भाता का नाग-श्रीमती सुशीला पिपलोदे. OXAMYL, CARBOFURAN, Science (निर्देशक–डॉ. ब्रजेश पारे) CARBARYL AND PROPOXUR शोध केन्द्र–शासकीय माधव (मौ सं दि 30-08-2018) PESTICIDES USING FLOWER LIKE विज्ञान महाविद्यालय, उज्जैन (कुलपति द्वारा अनुमोदित दिनाक NANO BIOCL." 30-10-2018) ' सोल२ लाईट असिस्टेड फोटोकेटालाइटिक डिग्रेडेशन ऑफ मिथोमाइल, आक्झेमाइल, En-No.-V11R388040010 कार्बोफ्यूरेन काबैराइल एण्ड प्रोपोझर पेस्टीसाइटस युजिंग फ्लावर लाइक नेनो BIOCI " 5 श्रीमती मीनल छजलानी, जैव रसायन " PHYTOCHEMICAL AND Smt. MEENAL BioChemistry BIOLOGICAL. CHHAJLANI. (विज्ञान) INVESTIGATION OF पिता का नाम– श्री राजेन्द्र कुमार जैन Science SANTALUM ALBUM माता का नाम-श्रीमती इंदु जैन, शोध केन्द्र-रसायन अध्ययनशाला. (FLOWERS) ." (निर्देशक—डॉ बी के मेहता) विकम विश्वविद्यालय, उज्जैन " फोइटोकेमिकल एण्ड बायोलॉजिकल (मौ. सं. दि. 28-09-2018) इन्देस्टिनेशन ऑफ सेन्टेलम एल्बम (फलावर्स) (कुलपति द्वारा अनुमोदित दिनाक 30-10-2018) En-No.-V11R388040002 संकाय–जीव विज्ञान 6 मोहम्मद लुकमान मंसूरी, प्राणिकी "STUDIES ON REGULATION OF METABOLIC FLEXIBILITY OF MOHAMMAD LUKMAN Zoology SKELTAL MUSCLES BY SILENT MANSURI. (जीवविज्ञान) **INFORMATION REGULATOR 3** पिता का नाम श्री सबराती खॉ मस्री. Life Science (SIRTUIN3) माता का नाग-श्रीमति छोटी बी. शोधकेन्द्र–प्राणिकी एव जैव विज्ञान " स्टडीज ऑन रेग्युलेशन ऑफ मेटाबॉलिक (निर्देशक–डॉ. एम.एस.परिहार) अध्ययनशाला, विकम पलेक्जेबिलिटी ऑफ स्केलेटल मसल्स बाय साइलेन्ट (मौ. सं. दि. 22-10-2018) विश्वविद्यालय, उज्जैन इफॉरमेशन रेग्युलेटर थी (सरटुइन्स 3)" (कुलपति द्वारा अनुमोदित दिनांक 30-10-2018) En-No.-B 09 2446 'ASSOCIATION OF VARIOUS RISK प्राणिकी 7 साधना सेवक. FACTORS NAMELY SADHANA SEWAK, Zoology DEMOGRAPHIC, ANGIOGENIC पिता का नाम-श्री ओमप्रकाश कौशिक. (जीवविज्ञान) (VEGF) AND SERUM GLYCEMIC माता का नाम—श्रीमति श्यामा कौशिक, Life Science LEVEL IN THE PROGRESSION OF (निर्देशक—डॉ. चंद्रशीला गुप्ता) शोधकेन्द्र–प्राणिकी एवं जैव विज्ञान THE DIABETIC RETINOPATHY IN (सहनिर्देशक–डॉ.पी.के.गोयल) अध्ययनशाला, विकम MALWA REGION'S DEABETICS ." (मौ. सं. दि. 29-08-2018) विश्वविद्यालय, उज्जैन " एसोसिएशन ऑफ वेरीउस रिस्क फेक्टर्स नेमली (कुलपति द्वारा अनुमोदित दिनांक डेमोग्राफिक, इन्जीओजेनिक (वी ई जी एफ) एण्ड 30-10-2018) सीरम ग्लाईसिमिक लेवल इन द प्रोगेशन ऑफ द डयबिटिक रेटीनोपेथी इन मालवा रिजन्सस् En-No.-Ph.D.91/2012 डायबिटिक्स "





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4.	12 Pillars of Self Leadership	Gender Sensitization
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6.	Challenges of Sustainable Development	Environment and Sustainability
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Dr. Pinki Dwivedi Dr. Kalpana Singh Dr. Arpan Bhardwaj UGC Coordinator Coordinator IQAC Principal & Chairperson IQAC Govt madhav science college ujjain Instragram madhavscience2020 Chemistry Department MVM



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**Chief Guest** 



Dr. Mohan Yadav Hon'ble Minister, Higher Education, Govt. of M.P.



Dr. Vikrant Singh Tomar Acknowledged Trainer, Writer, Academician, Scholar and Consultant

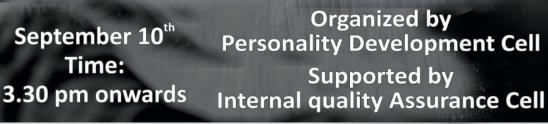


Dr. Brahmadeep Alune Dr. Arpan Bhardwaj State Co-ordinator. Personality Development Cell, Higher Education, Bhopal

Dr. Shobha Shouche Coordinator Personality Development Cell

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# By PROF. RAJNEESH MISRA

Professor of Chemistry, IIT, Indore

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- His research interest focuses on design, and synthesis of conjugated organic molecules for organic electronicsMand photonics such as solar cells, fieldeffect transistors, light-emitting diodes, and multiphoton absorption.
- He and his group has published in quality journals like Dalton Transactions, Angewandtechemie, EuroJoc, Organometallics and Journal of material Chemistry.
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