



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



Programmes in which Elective's course system has been implementation.

Session 2019-20			
1	2019-20	B.Sc.	Chemistry
			Mathematics
			Physics
			Computer Application
			Statistic
			Electronic
			Economics
			Computer Science,
			Information Technology
			Geology
			Pharmaceutical Chemistry
			Geography
			Bioinformatics
			Biotechnology
2	2019-20	M.Sc. Botany	Botany





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3	2019-20	M.Sc. Chemistry	Chemistry
4	2019-20	M.Sc. Mathematics	Mathematics
5	2019-20	M.Sc. Microbiology	Microbiology
6	2019-20	M.Sc. Pharmaceutical Chemistry	Pharmaceutical Chemistry
7	2019-20	M.Sc. Zoology	Zoology
8	2019-20	PG Diploma in Yoga	Yoga

Principal  
Govt. Madhav Science College  
Ujjain




# VIKRAM UNIVERSITY UJJAIN



## M.Sc. Chemistry Semester -IV Scheme of Examination

Sr. No.	Comp/Opt	Paper Title	Code (MCH)	Max. Marks
I	Compulsory	Application of spectroscopy	MCH-511	40+10(CCE)=50
II	Compulsory	Solid State	MCH-512	40+10(CCE)=50
III	Compulsory	Biochemistry	MCH-513	40+10(CCE)=50
IV	Optional Any two	Organic Synthesis	MCH-514	40+10(CCE)=50
V		Chemistry of Natural Products	MCH-515	40+10(CCE)=50
		Analytical chemistry	MCH-516	40+10(CCE)=50
		Electro Chemistry	MCH-517	40+10(CCE)=50
		Medicinal chemistry	MCH-518	40+10(CCE)=50
		Practical 1		33
		Practical 2		33
		Practical 3		34
		Project		50
		<b>Total Marks</b>		<b>400</b>

  
25/06/2024  
सहायक कुलसचिव अकादमिक  
विक्रम विश्वविद्यालय,  
उज्जैन

Semester wise Syllabus  
For  
Postgraduates

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Session  
2015-16  
M.Sc. Zoology

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

*Registrar*

*Asst. Registrar*

*Asst. Registrar*

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Registrar  
Vikram University  
Ujjain

M.Sc. Zoology Semester I

2

S.No.	Paper	Topic of paper	Max.Marks	Total
1.	Theory paper I	Biosystematics, Taxonomy and Evaluation	40 +10	200
2.	Theory paper II	Structure and function of invertebrate	40 +10	
3.	Theory paper III	Quantitative biology, Biodiversity and wild life	40 +10	
4.	Theory paper III	Bio molecules and structure Biology	40 +10	
5.	Practical paper I	Related to I and II Theory paper	50	100
6.	Practical paper II	Related to III and IV Theory paper	50	

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M.Sc. Zoology Semester II

3

S.No.	Paper	Topic of paper	Max.Marks	Total
1.	Theory paper I	General and Comparative animal physiology and Endocrinology	40 +10	200
2.	Theory paper II	Population Ecology and Environmental physiology	40 +10	
3.	Theory paper III	Tools and Techniques for Biology	40 +10	
4.	Theory paper IV	Molecular cell Biology and Genetics	40 +10	
5.	Practical paper I	Related to I and II Theory paper	50	100
6.	Practical paper II	Related to III and IV Theory paper	50	

*Prof. Dr. ...*

*M. Pawila*

*YUSM*

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Ukrain University  
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M.Sc. Zoology Semester III

4

S.No.	Paper	Topic of paper	Max.Marks	Total
1.	Theory paper I	Comparative anatomy of Vertebrates	40 +10	200
2.	Theory paper II	Limnology	40 +10	
3.	Theory paper III	Ecotoxicology	40 +10	
4.	Theory paper III	Aquaculture	40 +10	
5.	Practical paper I	Related to I and II Theory paper	50	100
6.	Practical paper II	Related to III and IV Theory paper	50	

*Dr. V. K. ...*  
*M. S. ...*

*Yusuf*  
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M.Sc. Zoology Semester IV

S.No.	Paper	Topic of paper	Max.Marks	Total
1	Theory paper I	Animal Behaviour and Neurophysiology	40 +10	200
2	Theory paper II	Gamete Biology, Development and Differentiation	40 +10	
3	Theory paper III	Optional Paper Group - 1 (a) Fish (Ichthyology) structure and function Or (b) Cell biology Or (c) Entomology Or (d) Wild life conservation Or (e) Biology of vertebrates immune system Or (f) Limnology Or Aquaculture	40 +10	
4	Theory paper IV	Optional Special paper Group 2 (a) Pisci culture and economic importance of fish Or (b) Cellular organization and molecular organization Or (c) Applied entomology Or (d) Environment & Biodiversity Or (e) Molecular endocrinology and reproductive technology Or (f) Limnology and fish productivity Or (g) Applied aquaculture Or (h) Protein Nucleic acids and metabolic regulation Or (i) Sericulture	40 +10	

*H.S. Pandey*

*Asst. Prof.*

*YNSM*  
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5.	Practical paper I	Related to I and II Theory paper	50	100
6.	Practical paper II	Related to Optional paper from Group I and Group II	25+25 =50	
7.	Project	Job Work	50	50

*Asst. Reg.*  
*M. S. Pandey*

  
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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 2009-10

M. Sc. Botany (Semester System)

Third Semester

Course No.	Name of the Course	Total
PG 301	Plant Physiology	50
PG 302	Plant Biochemistry & Metabolism	50
PG 303	Cytogenetics & Genetics	50
PG 304	Molecular Biology of Plants	50
PG 305	Practical I – based on Course PG 301 & 302	50
PG 306	Practical II – based on Course PG 303 & 104	50
	Total	300

Fourth Semester

Course No.	Name of the Course	Total
PG 401	Plant Cell, Tissue & Organ Culture	50
PG 402	Biotechnology & Genetic Engineering	50
PG 403	Elective I* - Environment Science	50
PG 404	Elective II* - Ethnobotany	50
PG 405	Practical I – based on Course PG 401 & 402	50
PG 406	Practical II – based on Course PG 403 & 404	50
	Total	300

  
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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.**

**M. Sc. Botany (Semester Pattern)**

**First Semester**

Course No.	Name of the Course	Total
PG 101	Biology & Diversity of Viruses, Bacteria and Fungi	50
PG 102	Biology & Diversity of Algae, Bryophytes and Pteridophytes	50
PG 103	Biology & Diversity of Gymnosperms	50
PG 104	Plant Ecology	50
PG 105	Practical I – based on Course PG 101 & 104	50
PG 106	Practical II – based on Course PG 102 & 103	50
	Total	300

**Second Semester**

Course No.	Name of the Course	Total
PG 201	Plant Development & Reproduction	50
PG 202	Morphology & Taxonomy of Angiosperms	50
PG 203	Utilization & Conservation of Plant Resources	50
PG 204	Cell Biology of Plants	50
PG 205*	Practical I – based on Course PG 201 & 202	50
PG 206	Practical II – based on Course PG 203 & 204	50
	Total	300

\*N.B.: PG 205 will include the following points:

1. Numbers of representative families (about 25) shall be taken up in the practical classes describing the plants up to species level.
2. Study of the primary and secondary anatomy of root and stem in dicots and monocots.

  
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**M. Sc. Drugs and Pharmaceutical Chemistry**  
**SEMESTER- III 2015-16**

Paper	Comp/Opt	Paper Title	Code (MCH)	Max. Marks
I	Compulsory	Principles of Physical Pharmacy-Ii	PC-301	40+10 (CCE) = 50
II	Compulsory	Principles Of Pharmacognosy	PC-302	40+10 (CCE) = 50
III	Compulsory	Pharmaceutical Medicinal Chemistry-I	PC -303	40+10 (CCE) = 50
IV	Compulsory	Principles Of Inorganic Pharmaceutical Chemistry- II	PC-304	40+10 (CCE) = 50
V	Optional- 1	Instrumental Methods of Analysis	PC -305	40+10 (CCE) = 50
		PRACTICAL 1.		50
		PRACTICAL 2.		50
		TOTAL		400

**M. Sc. Drugs and Pharmaceutical Chemistry**  
**SEMESTER- IV 2016-17**

Paper	Comp/Opt	Paper Title	Code (MCH)	Max. Marks
I	Compulsory	Pharmaceutical Medicinal Chemistry-Ii	PC-401	40+10 (CCE) = 50
II	Compulsory	Drug Design And Medicinal Chemistry	PC-402	40+10 (CCE) = 50
III	Compulsory	Advance Chemistry	PC-403	40+10 (CCE) = 50
IV	Compulsory	Supplements, Additives And Toxicology	PC-404	40+10 (CCE) = 50
V	Optional- 1	Drug Pharmacokinetics And Drug Development	PC-405	40+10 (CCE) = 50
		PRACTICAL 1.		50
		PRACTICAL 2.		50
		PROJECT		50
		TOTAL		450

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*[Signature]*  
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**Ujjain**

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, मध्य प्रदेश शासन

स्नातकोत्तर कक्षाओं के लिए सेमेस्टर अनुसार पाठ्यक्रम

केन्द्रीय अध्ययन मण्डल द्वारा अनुमोदित 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
III	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
		PRACICAL 1		50
		PRACICAL 2		50
		TOTAL		400

M. Sc. Drugs and Pharmaceutical Chemistry

SEMESTER - II 2016 - 17

Paper	Comp/ Opt	Paper Title	Code (MCH)	Max. Marks
I	Compulsory	Principles of Inorganic Pharmaceutical Chemistry - I	PC-201	40+10 (CCE) = 50
II	Compulsory	Pharmaceutical Analysis - I	PC-202	40+10 (CCE) = 50
III	Compulsory	Pharmaceutical Analysis - II	PC-203	40+10 (CCE) = 50
IV	Compulsory	Principles of Physical Pharmacy - II	PC-204	40+10 (CCE) = 50
V	Optional-1	Computers for Chemists	PC-205	40+10 (CCE) = 50
		PRACICAL 1		50
		PRACICAL 2		50
		TOTAL		400

Digitally signed by the Controller  
 ARUN KUMAR SINGH  
 E-MAIL: ARUN@HEDMOWA  
 A111012@HEDMOWA

*Handwritten signatures and notes:*  
 Name: [unclear] Date: [unclear]  
 7/11/15  
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**Subject combinations UG electives (Select any one)**

SrNo.	College Code	Course Mode	Course Level	Course code	Branch Name
1	1812	SIF	UG	C030	BCA
2	1812	SIF	UG	C062	Biotechnology - Botany - Chemistry
3	1812	SIF	UG	C080	Botany - Chemistry - Microbiology
4	1812	SIF	UG	C327	Bioinformatics - Chemistry - Zoology
5	1812	SIF	UG	C067	Biotechnology - Chemistry - Zoology
6	1812	REG	UG	C085	Botany - Chemistry - Zoology
7	1812	SIF	UG	C092	Botany - Pharmaceutical Chemistry - Zoology
9	1812	SIF	UG	C118	Chemistry - Microbiology - Zoology
10	1812	SIL	UG	C183	Pharmaceutical Chemistry Bioinformatics - Zoology
11	1812	REG	UG	C116	Chemistry - Mathematics - Physics
12	1812	SIF	UG	C127	Computer Application - Economics - Mathematics
12	1812	SIF	UG	C129	Computer Application - Mathematics - Physics
13	1812	SIF	UG	C130	Computer Application - Mathematics - Statistics
14	1812	SIF	UG	C137	Computer Science - Mathematics - Physics
15	1812	SIF	UG	C138	Computer Science - Mathematics - Statistics
16	1812	REG	UG	C139	Economics - Mathematics - Statistics
17	1812	SIF	UG	C140	Electronics - Computer Science - Mathematics
18	1812	SIF	UG	C142	Electronics - Information Technology - Mathematics
19	1812	REG	UC	C148	Geology - Economics - Mathematics
20	1812	SIF	UG	C156	Information Technology - Mathematics - Physics
21	1812	SIF	UG	C170	Mathematics - Electronics - Statistics
22	1812	REG	UG	C172	Mathematics - Geology Physics
23	1812	SIF	UG	C176	Mathematics - Information Technology - Statistics
24	1812	SIF	UG	C178	Mathematics - Pharmaceutical Chemistry - Physics
25	1812	REG	UG	C177	Physics - Mathematics - Statistics
26	1812	SIF	UG	CMS.9	Computer Application - Geology - Mathematics
27	1812	REG	UG	C311	Economics - Geography - Geology
28	1812	REG	UG	C312	Economics - Geography - Statistics
29	1812	REG	UG	C313	Chemistry - Geology - Geography
30	1812	REG	UG	D.379	Geography - Physics - Geology

  
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**Govt. Madhav Science PG College, Ujjain (MP)**  
**Department of Yoga**  
**PG Diploma in Yoga**  
**Syllabus**  
**Semester I – Theory Group**  
**Paper-I**  
**Theoretical aspects of Yoga Science**  
Max. Marks -50

- Unit 1 – Introduction to Yoga: Yoga – The Concept of Yoga, Meaning & Definitions, Historical Tradition of yoga.  
Unit 2 – Basic text of Yoga – Yoga Sutra of Patanjali (Samadhi & Sadhana Pada), Hathayoga Pradeepika (1<sup>st</sup> and 2<sup>nd</sup> Chapters)  
Unit 3 – Kinds of Yoga: Jnana, Bhakti & Karma Yoga in Particular.  
Unit 4 – Vibhuti's of Yoga: Quest for Yoga: levels, achievements & synthesis.  
Unit 5 – Contemporary Yogis: Swami Vivekanand, Swami Kuvalayananda, Shri Yogendra, Swami Shivanand, Shri Arvind and Ramana Maharshi.

**Paper II (a)**  
**Practical Aspects of Yoga Science**  
Max. Marks – 50

- Unit 1 – Yoga & Health: Meaning and Definition, Importance in life, Theories of health, Various exercises, Benefits of Yogasanas & their values *vis-a-vis* other systems.  
Unit 2 – Practice of Yoga: Preparation, variations and categories, Dress, Selection of Yoga Techniques, Yogic Routine, Yogic Food.  
Unit 3 – Physiology: Constitution of various organs & their functioning.  
Unit 4 – Life pattern and Yoga: Effect of Yoga upon bodily functions: Digestion, Blood & circulation, Respiration, Excretion, Endocrine glands, Nerves, Brain & mind.  
Unit 5 – Yoga & Psychology: Endocrine glands & health, Psychic mechanism, behavior & personality, Physical, Mental and Atomic

  
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**Department of Yoga  
PG Diploma in Yoga  
Syllabus**

**Practical Group**

- |  |               |
|--|---------------|
| 1 – Practice Teaching (Indoor)   | M. Marks – 50 |
| Unit 1 – Asanas  | Marks 10      |
| Unit 2 – Kriyas  | Marks 10      |
| Unit 3 – Pranayama   | Marks 10      |
| Unit 4 – Class Arrangements  | Marks 10      |
| Unit 5 – Internal assessment   | Marks 10      |
| 2 – Practical  | M. Marks – 50 |
| Unit – 1 Kriyas – Jalneti, Kapalrandhradhauti,<br>Karnarandhradhauti, Jivhamool Shodhan, Vaman<br>Dhauti, Kunjal, Tratak.  |               |
| Unit – 2 Asanas – Cultural Asanas, Relaxation and Meditative<br>Asanas (Sthitprarthanasana, Sukhasana,<br>Ardhapadmasana, Padmasana, Tadasana I, II & III,<br>Konasana – I, Ekpadasana, Garunasana,<br>Hastapadasana, Yoga Mudra, Ardha Matsyendrasana,<br>Vakrasana (Sitting), Bhujangasana, Dhanurasana,<br>Yashtikasana, Halasana, Makarasana, Shavasana. |               |
| Unit – 3 Pranayama: Anulom – Vilom, Bhramri, Bhastrika   |               |
| Unit – 4 Mudra and Bandh<br>(a) Mudra – Hasta Mudra<br>(b) Bandh – Jalandhara, Moola, Uddyana  |               |
| Unit – 5 Yoga Nidra, Nishpand Bhava, Yoni Mudra  |               |
| 3 – Practical record (a)   | M. Marks – 25 |
| 4 – Viva-Voce Test (1)   | M. Marks – 25 |

**Total Marks – 250 (First Semester)**

  
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**PG Diploma in Yoga**  
**Syllabus**  
**Semester II- Theory Group (Part - a)**  
**Paper-I A**  
**Theoretical Yoga Science**  
Max. Marks -50

- Unit 1 – Yoga Introduction- Sources of the origin of Yoga Shastra. References of Yoga in various texts: Veda, Upanishad, Gita, Jain and Buddhist texts and other six systems of Vedic Philosophy.
- Unit 2 – The basic text of Yoga – Yoga Sutra of Patanjali (Vibhuti & Kaivalya Pada), Gheranda Samhita (Chapter one), Hathyoga Pradipika (Chapter Three and Four).
- Unit 3 – Kinds of Yoga – Kundalini, Hath, Mantra, Laya & their synthesis.
- Unit 4 – The objects of Yoga – Vibhutis attained on their higher Yogic levels, their characteristics & stages.
- Unit 5 – The subject matter of Yoga Philosophy: God, Prakriti, Purush, Soul, Cosmology, Kleshas, Chitta – Bhumis, Vrittis, Abhyas -Vairagya in Gita

**Paper II (b)**  
**Practical Yoga Vijnana**  
Max. Marks – 50

- Unit 1 – Pranayama – Prana, Kinds of Prana, Patterns of Pranayama in various texts, Precautions, Benefits.
- Unit 2 – Chakra bhedana – Nadis, Chakras, Kundalini, Nads, dos & don'ts in Svarodaya.
- Unit 3 – Shuddhkriya – Pad Karma, Method & Utility.
- Unit 4 – Bandh – Mudra – Methods & benefits of bandhas & mudras as found in various texts.
- Unit 5 – Life – pattern and Yoga: Laws of nature, Harmony of Yogic Life Pattern with Society and Cultural and Practical conditioning.

  
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## Syllabus

### Practical Group

#### Part (a)

- |  | M. Marks- 50  |
|--|---------------|
| 1. Practice Teaching (Outdoor)   | M. Marks - 40 |
| Unit 1 - Asanas  | Marks - 10    |
| Unit 2 - Kriyas  | Marks - 10    |
| Unit 3 - Pranayama   | Marks - 10    |
| Unit 4 - Class Arrangements  | Marks - 10    |
| 2. Class Test  | M. Marks - 10 |
| 3. Practical (b)   | M. Marks - 50 |
| Unit 1 - Kriyas - Basti, Nauli, Trataka  |               |
| Unit 2 - Asanas - Advanced Backward and Forward bending, Twistings and Balancing Asanas  |               |
| Unit 3 - Pranayama - Sheetal, Sheetkari, Bhramri, Murchha & Plavani  |               |
| Unit 4 - Mudra & Bandh (a) Mudra- Ashvini, Prana, Maha, Khechari & Kaki Mudras.<br>(b) Bandh - Jalandhara, Moola, Uddyana with Asanas & Pranayams. |               |
| Unit 5 - Concentration & Meditation  |               |
| 4. Practical Record (b)  | Marks - 25    |
| 5. Viva - Voce Test  | Marks - 25    |

**Total Marks - 250 (Second Semester)**

### Project Work

- I - Semester - On any Asana
- II - Semester - Camp for Teaching Practice

  
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**P.G. DEPARTMENT OF MICROBIOLOGY  
GOVT. MADHAV VIGYAN MAHAVIDYALAYA UJJAIN (M.P.) 2012-13**

**M.Sc. (APPLIED MICROBIOLOGY) SYLLABUS  
(SEMESTER SYSTEM)**

Year	Semester	Paper	Name of the Papers	Marks	Internal (CCE)	Practicals (Internal)	Marks
M.Sc. I Previous	Sem. I	AM101	General Microbiology	40	10	On the basis of paper I&II	50
		AM102	Growth & Physiology of Microorganism	40	10		
		AM103	Bioinstrumentation	40	10	On the basis of paper III & IV	50
		AM104	Biochemistry	40	10		
			(T) 200			(P) 100	
	Total (Theory + Practical+ Internal)		TOTAL			300	

Year	Semester	Paper	Name of the Papers	Marks	Internal (CCE)	Practicals (Internal)	Marks
M.Sc. I Previous	Sem. II	AM201	Virology & Mycology	40	10	On the basis of paper I&II	50
		AM202	Cyanobacteria, Algae & Edible Microfungi	40	10		
		AM203	Environmental Microbiology	40	10	On the basis of paper III & IV	50
		AM204	Food & Industrial Microbiology	40	10		
			(T) 200			(P) 100	
	Total (Theory + Practical+ Internal)		TOTAL			300	

**Fee structure for M.Sc. Applied Microbiology (Two-year course)**

1. Tuition Fee 40000-00 (For two year)
  2. Library Fee 1000-00 (For two years)
  3. Gaulation Money 1000-00 (Once the course)
  4. Laboratory Fee 2000-00 (For two year)
- Total Fee 44000-00 (Forty four Thousand Only)**

Examination fees: - Rs.1750/-+college forwarding fees Rs.200/- =1950/-

  
**CO-ORDINATOR**  
**Microbiology**  
 Govt. Madhav Vigyan Mahavidyalaya  
 UJJAIN (M.P.)

**M.Sc. APPLIED MICROBIOLOGY**

  
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**Vikram University**  
**Ujjain**

**M.Sc. (APPLIED MICROBIOLOGY) SYLLABUS  
(SEMESTER SYSTEM)**

Semester	Paper	Name of the Papers	Marks	Internal (CCE)	Practical (Internal)	Max
Sem. III	AM301	Medical Microbiology and Immunology	40	10	On the basis of paper I&II	50
	AM302	Statistics and Computer for biology	40	10		
	AM303	Bioinformatics and Biotechnology	40	10	On the basis of paper III & IV	50
	AM304	Microbial Genetics, Molecular Biology & Cell Biology	40	10		
Total (Theory + Practical+ internal)			<b>TOTAL</b>	<b>(T) 200</b>	<b>(P) 100</b>	<b>300</b>

Semester*	Paper	Name of the Papers	Marks	Internal (CCE)	Practicals (Internal)	Mark
Sem. IV*	AM401	Pharmaceutical Microbiology	40	10	On the basis of paper I&II	50
	AM402	Applied Microbiology	40	10		
	AM403	Microbial Fermentation Technology	40	10	On the basis of paper III&IV	50
	AM404	Marine Microbiology	40	10		
			<b>(T) 200</b>	<b>(P) 100</b>		

**Project/Survey/Dissertation:** Students will complete a short term project/Survey/Dissertation from different institutes including NGO, Govt. Organizations.  
**Marks: Project Submission + Viva(25+25)= 50**

Total (Theory+ Practical+ Internal+ Project) **TOTAL 350**

**Note:** Fourth Semester Papers are specifically selected and designed in a manner for the students to help into different applied areas of microbiology and to get possible job opportunities.

**Fee structure for M.Sc. Applied Microbiology (Two-year course)**

- 1. Admission Fee 40000-00 (For two year)
- 2. Library Fee 1000-00 (For two years)
- 3. Caution Money 1000-00 (Once the course)
- 4. Laboratory Fee 2000-00 (For two year)
- Total Fee 44000-00 (Forty Four Thousand Only)**

**Examination fees:** - Rs.1750/- +college forwarding fees Rs.200/- =1950/-

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**Vikram University**  
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### MATHEMATICS

Papers	Theory (M.M.)	Continuous Comprehensive Evaluation (M.M.)	Practical (M.M.)	Total (M.M.)
Paper I. Advanced Abstract Algebra - I	40	10	-	50
Paper II. Real Analysis	40	10	-	50
Paper III. Topology - I	40	10	-	50
Paper IV. Complex Analysis - I	40	10	-	50
Paper V. Optional (Any One) :-				
(i) Differential Equations - I	40	10	-	50
(ii) Advanced Discrete Mathematics - I	40	10	-	50
(iii) Differential Geometry of Manifolds - I	40	10	-	50
(iv) Programming in C - I (Theory & Practical)	25	10	15	50
Paper VI. Comprehensive Viva-Voce				50
<b>Total</b>				<b>300</b>

### COURSE STRUCTURE

M.A./M.Sc. SEMESTER - II, (Regular Students)

### MATHEMATICS

Papers	Theory (M.M.)	Continuous Comprehensive Evaluation (M.M.)	Practical (M.M.)	Total (M.M.)
Paper I. Advanced Abstract Algebra - II	40	10	-	50
Paper II. Lebesgue Measure and Integration	40	10	-	50
Paper III. Topology - II	40	10	-	50
Paper IV. Complex Analysis - II	40	10	-	50
Paper V. Optional (Any One) :-				
(i) Differential Equations - II	40	10	-	50
(ii) Advanced Discrete Mathematics - II	40	10	-	50
(iii) Differential Geometry of Manifolds - II	40	10	-	50
(iv) Programming in C - II (Theory & Practical)	25	10	15	50
Paper VI. Comprehensive Viva-Voce				50
<b>Total</b>				<b>300</b>

Note : At the end of each Semester a Comprehensive Viva-Voce is to be conducted by a board of atleast three examiners which includes at least one external examiner.

  
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 Ujjain

**MATHEMATICS**

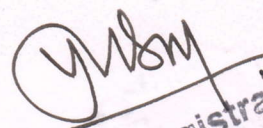
Papers	Theory (M.M)	Continuous Comprehensive Evaluation (M.M)	Practical (M.M.)	Total (M.M.)
Paper I. Advanced Abstract Algebra - I	50	-	-	50
Paper II. Real Analysis	50	-	-	50
Paper III. Topology - I	50	-	-	50
Paper IV. Complex Analysis - I	50	-	-	50
Paper V. Optional (Any One) :-				
(i) Differential Equations - I	50	-	-	50
(ii) Advanced Discrete Mathematics - I	50	-	-	50
(iii) Differential Geometry of Manifolds - I	50	-	-	50
(iv) Programming in C - I (Theory & Practical)	35	-	15	50
Paper VI. Comprehensive Viva-Voce				50

**M.Sc./M.A. SEMESTER - II (Private Students)**

**MATHEMATICS**

Papers	Theory (M.M)	Continuous Comprehensive Evaluation (M.M)	Practical (M.M.)	Total (M.M.)
Paper I. Advanced Abstract Algebra - II	50	-	-	50
Paper II. Lebesgue Measure and Integration	50	-	-	50
Paper III. Topology - II	50	-	-	50
Paper IV. Complex Analysis - II	50	-	-	50
Paper V. Optional (Any One) :-				
(i) Differential Equations - II	50	-	-	50
(ii) Advanced Discrete Mathematics - II	50	-	-	50
(iii) Differential Geometry of Manifolds - II	50	-	-	50
(iv) Programming in C - II (Theory & Practical)	35	-	15	50
Paper VI. Comprehensive Viva-Voce				50

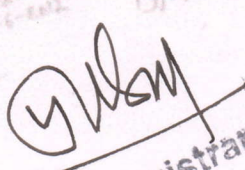
Note : At the end of each Semester a Comprehensive Viva-Voce is to be conducted by a board of atleast three examiners which includes at least one external examiner.

  
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**COURSE STRUCTURE**  
**M.Sc./M.A. SEMESTER - III 2012-2013**  
**MATHEMATICS**

Name of the Papers	Theory (30 M)	Minor (10 M)	C.C.E.	Mini (10 M)	Practical (10 M)	Mini (10 M)	Total
<b>Compulsory</b>							
Paper I. Integration Theory & Functional Analysis-I	40	15	10	04	---	---	50
<b>Optional Paper's</b>							
Four papers out of the following have to be chosen, opting not more than one from each group							
<b>Group I</b>							
(1) Advanced Functional Analysis-I	40	15	10	04	---	---	50
(2) Partial Differential Equations							
(3) Differentiable Structures on manifolds-I							
(4) General Theory of Relativity and Cosmology-I							
<b>Group II</b>							
(1) Algebraic Topology-I	40	15	10	04	---	---	50
(2) Abstract Harmonic Analysis-I							
(3) Advanced Graph Theory-I							
(4) Advanced Special Function-I							
<b>Group III</b>							
(1) Theory of Linear Operators-I	40	15	10	04	---	---	50
(2) Advanced Numerical Analysis-I							
(3) Fuzzy Sets and their Applications-I							
<b>Group IV</b>							
(1) Operations Research-I	40	15	10	04	---	---	50
(2) Computational Biology-I							
(3) Jacobi Polynomial & H-Function-I							
(4) Fluid Mechanics-I							
<b>Group V</b>							
(1) Wavelets-I	40	15	10	04	---	---	50
(2) Bio-Mechanics-I							
(3) Analytic Number Theory-I							
(4) Integral Transform-I							
<b>Group VI</b>							
(1) Fundamentals of Computer Science (Theory & Practical)-I	25	09	10	04	15	06	50
(2) Mathematics of Finance & Insurance-I	40	15	10	04	---	---	50
(3) Spherical Trigonometry and astronomy-I							
<b>Paper VI</b>							
Comprehensive Viva-Voce							50
<b>Grand Total</b>							<b>300</b>

*B.S./*  
*13/06/12*  
*13/06/12*  
*19/6/2012*  
*11.6.12*

  
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M.Sc./M.A. SEMESTER - IV 2012 -2013 (Regular Students)  
**MATHEMATICS**

Name of the Papers	Theory (MM)	Mini. Pass M	C.C.E.	Mini. Pass M	Practical MM	Mini. Pass M	Total
Compulsory							
Paper I. Functional Analysis-II	40	13	10	04	—	—	50
Optional Paper's							
Four papers out of the following have to be chosen, opting not more than one from each group.							
Group I							
(1) Advanced Functional Analysis-II	40	13	10	04	—	—	50
(2) Mechanics							
(3) Differentiable Structures on manifolds-II							
(4) General Theory of Relativity and Cosmology-II							
Group II							
(1) Algebraic Topology-II	40	13	10	04	—	—	50
(2) Abstract Harmonic Analysis-II							
(3) Advanced Graph Theory-II							
(4) Advanced Special Function-II							
Group III							
(1) Theory of Linear Operators-II	40	13	10	04	—	—	50
(2) Advanced Numerical Analysis -II							
(3) Fuzzy Sets and their Applications-II							
Group IV							
(1) Operations Research -II	40	13	10	04	—	—	50
(2) Computational Biology -II							
(3) Jacobi Polynomial & H-Function-II							
(4) Fluid Mechanics -II							
Group V							
(1) Wavelets-II	40	13	10	04	—	—	50
(2) Bio-Mechanics -II							
(3) Analytic Number Theory-II							
(4) Integral Transform-II							
Group VI							
(1) Fundamentals of Computer Science (Theory & Practical) -II	25	09	10	04	15	06	50
(2) Mathematics of Finance & Insurance -II	40	13	10	04	—	—	50
(3) Spherical Trigonometry and astronomy-II							
Paper VI Comprehensive Viva-Voce							50
Paper VII Job Oriented Project Work							50
<b>Grand Total</b>							<b>350</b>

Note: Above Mentioned bold Optional Papers are teaching in the University and Colleges. If any College wants to change their optional Papers. Kindly inform to the Dy. Registrar (Examination), Vikram University, Ujjain.

*YNSM*  
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