



Estd. 1962
NAAC 'A' Grade

SHIVAJI UNIVERISTY, KOLHAPUR-416 004. MAHARASHTRA

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SU/BOS/Sci & Tech/815

Date: 21/01/2019

To,

The Principal,
All affiliated college,
Shivaji University,
Kolhapur.

Subject: Regarding minor change in Structure of **M.Sc. Agrochemical and Pest Management** under Faculty of Science & Technology.

Sir/Madam,

With reference to the subject mentioned above, I am directed to inform you that the University have accepted and granted approval to minor change in Structure of **M.Sc. Agrochemical and Pest Management** under Faculty of Science & Technology which is enclosed herewith.

This minor change in Structure of will be implemented from the academic year 2018-2019 i.e. from June 2018 onwards.

You are therefore, requested to bring this to the notice, all students and teachers concerned.

Thanking you,

Yours faithfully,

Dy. Registrar

Copy to :-

1	The Dean, Faculty of Science & Technology	8	Appointment Section
2	The Chairman, Respective, BOS	9	Centre for Distance Education
3	Exam Section	10	Computer Centre
4	Eligibility Section	11	Affiliation Section (U.G.)
5	O.E. I Section	12	Affiliation Section (P.G.)
6	O.E. II Section	13	P.G.Admission Section
7	O.E. III Section	14	P.G.Seminar Section

STRUCTURE OF COURSE

FIRST YEAR (NO. OF PAPERS = 8 (eight))

	Subjects	Marks
	SEMESTER I	
1	PAPER-I : CHEMISTRY OF PESTICIDES AND THEIR FORMULATIONS-I	100
2	PAPER-II : SOIL SCIENCE, FERTILIZERS AND MICRONUTRIENTS	100
3	PAPER -III : INTRODUCTORY AND INDUSTRIAL ENTOMOLOGY	100
4	PAPER -IV : BASIC CONCEPTS IN PLANT PATHOLOGY	100
	Practical I : Chemical Science	100
	Practical II : Life Science	100
	SEMESTER II	
5	PAPER-V : CHEMISTRY OF PESTICIDES AND THEIR FORMULATIONS-II	100
6	PAPER-VI: ANALYTICAL TECHNIQUES FOR AGROCHEMICALS	100
7	PAPER-VII : ECONOMIC ENTOMOLOGY	100
8	PAPER-VIII: BIOTECHNOLOGICAL ASPECTS IN PLANT PROTECTION	100
	Practical III : Chemical Science	100
	Practical IV : Life Science	100

SECOND YEAR (NO. OF PAPERS = 8 (Eight))

SEMESTER III		
9	PAPER-IX : PESTICIDE RESIDUES AND TOXICOLOGY	100
10	PAPER-X : PESTS OF CROP PLANTS AND THEIR CONTROL-I	100
11	PAPER -XI : ANALYSIS OF AGROCHEMICALS	100
12	PAPER -XII : DISEASES CROP PLANTS AND THEIR CONTROL-I	100
	Practical V : Chemical Sciences	100
	Practical VI : Life Science	100
SEMESTER IV		
13	PAPER-XIII : AGRO-BASED MARKETING MANAGEMENT	100
14	PAPER-XIV: PESTS OF CROP PLANTS AND THEIR CONTROL -II	100
15	PAPER-XV : MANUFACTURE OF AGROCHEMICALS	100
16	PAPER-XVI : DISEASES OF CROP PLANTS -II	100
	Practical VII : Chemical Science	100
	Practical VIII : Life Science	100

SCHEME OF TEACHING AND EXAMINATIONM.

M. Sc. I (Semester I and II)

Sr. No.	Subject/ Paper	Teaching Scheme (Hrs/week)				Examination scheme (Marks)			Credit
		L	T	P	TOTAL	THEORY	TERM WORK	TOTAL	
	SEMISTER I								
1.	PAPER-I : CHEMISTRY OF PESTICIDES AND THEIR FORMULATIONS - I	4	-	-	4	80	20	100	4
2.	PAPER-II : SOIL SCIENCE, FERTILIZERS AND MICRONUTIENTS	4	-	-	4	80	20	100	4
3.	PAPER – III : INTRODUCTORY AND INDUSTRIAL ENTOMOLOGY	4	-	-	4	80	20	100	4
4.	PAPER- IV : BASIC CONCEPTS IN PLANT PATHOLOGY	4	-	-	4	80	20	100	4
	Practical I: Chemical Science	-	-	6	6	80	20	100	4
	Practical II: Life Science	-	-	6	6	80	20	100	4
	SEMISTER II								
1.	PAPER - V: CHEMISTRY OF PESTICIDES AND THEIR FORMULATIONS – II	4	-	-	4	80	20	100	4
2.	PAPER- VI- ANALYTICAL TECHNIQUES FOR AGROCHEMICALS	4	-	-	4	80	20	100	4
3.	PAPER – VII : ECONOMIC ENTOMOLOGY	4	-	-	4	80	20	100	4
4.	PAPER – VIII : BIOTECHNOLOGICAL ASPECTS IN PLANT PROTECTION	4	-	-	4	80	20	100	4
	Practical III: Chemical Science	-	-	6	6	80	20	100	4
	Practical IV: Life Science	-	-	6	6	80	20	100	4

M. Sc. II (Semester III and IV)

Sr. No.	Subject/ Paper	Teaching Scheme (Hrs/week)				Examination scheme (Marks)			Credit
		L	T	P	TOTAL	THEORY	TERM WORK	TOTAL	
	SEMISTER III								
1.	PAPER – IX PESTICIDE RESIDUES AND TOXICOLOGY	4	-	-	4	80	20	100	4
2.	PAPER X- PESTS OF CROP PLANTS AND THEIR CONTROL- I	4	-	-	4	80	20	100	4
3.	PAPERS XI- ANALYSIS OF AGROCHEMICALS	4	-	-	4	80	20	100	4
4.	PAPER XII : DISEASES OF CROP PLANTS AND THEIR CONTROL – I	4	-	-	4	80	20	100	4
	Practical V: Chemical Science	-	-	6	6	80	20	100	4
	Practical VI: Life Science	-	-	6	6	80	20	100	4
	SEMISTER IV								4
1.	PAPER - XIII: AGRO- BASED MARKETING MANAGEMENT	4	-	-	4	80	20	100	4
2.	PAPER- XIV- PESTS OF CROP PLANTS AND THEIR CONTROL -II	4	-	-	4	80	20	100	4
3.	PAPER – XV : MANUFACTURE OF AGROCHEMICALS	4	-	-	4	80	20	100	4
4.	PAPER – XVI : DISEASES OF CROP PLANS AND THEIR CONTROL - II	4	-	-	4	80	20	100	4
	Practical VII: Chemical Science	-	-	6	6	80	20	100	4
	Practical VIII: Life Science	-	-	6	6	80	20	100	4

SCHEME OF EXAMINATION	
	<ul style="list-style-type: none"> • The examination shall be conducted at the end of each semester. • The theory paper shall carry 80 marks. • The theory paper (internal) shall carry 20 marks. • The evaluation of the performance of the students in theory papers shall be on the basis of semester examination of 80+20 marks.(both theory and practicals) • Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.
	The Scheme of semester examination is as follows :-
	Total marks per theory paper =100 marks (80 marks external exam + 20 marks internal exam.)
	M. Sc. I (Semester- I and II) Theory Examination (For each semester)
	External examination 4 Theory papers 80 x 4= 320 marks Internal examination 20 x 4= 80 marks 400 marks
	M. Sc. I (Semester - I and II) Practical Examination <u>Chemical science practical:</u> 100 marks 60 experiments + 10 seminar + 10 oral and journal = 80marks Internal practical examination= 20marks 100marks
	<u>Life science practical:-</u> 100marks 70 mark experiments + 10 marks oral and journal = 80 marks Internal practical examination = 20 marks 100marks
	M. Sc. II (Semester – III) Theory Examination External examination 80 x 4 = 320 marks Internal examination 20 x 4 = 80 marks 400 marks
	M. Sc. II Semester - III Practical Examination <u>Chemical science Practical:-</u> 60 mark experiment +10marks industrial training +10mark oral and journal = 80marks Internal practical examination.=20 marks 100 marks.
	<u>Life Science Practical: -</u> 60 marks experiment +10 marks seminar +10 marks oral and Journals= 80marks Internal practical examination =.20 marks 100 marks.

	M. Sc. II (Semester- IV) Theory Examination
	External examination $80 \times 4 = 320$ marks Internal examination $20 \times 4 = 80$ marks 400marks
	M. Sc. II Semester - IV Practical Examination
	<u>Chemistry Practical</u> 50 marks experiment +25 research project evaluation +5 marks oral and journal = 80 marks Internal practical Examination = 20 marks 100 Marks
	<u>Life Science Practical:</u> - 50 marks experiment +25 Marks Project Presentation +5marks oral and journal = 80 marks Internal practical examination = 20 marks 100 Marks 600 x 4 semesters = 2400 marks
	STANDARD OF PASSING:
	As prescribed under rules and regulation for each degree.
	NATURE OF QUESTION PAPER AND SCHEME OF MARKING :- (Unit wise weightage of marks should also be mentioned)
	Theory Examination
	Section – I
	Q.NO.1 Is objective and multiple choice type, includes 16 sub questions carries one mark each.
	Section – II
	Q. NO.2 to 6 are descriptive carries 16 marks. Candidate is asked to solve Three questions out of five
	Section – III
	Q.NO.7 Is devoted to short notes. Candidate is asked to solve four short notes out of six. Each short note carries five marks.
	Practical Examination Which is given in paragraph(13) Scheme of examination experimental wise distribution of marks etc.

Grades, grade point and average grade point's calculations
Table showing the grades, grade points and marks scored by a student

Grades	Grade points	Marks out of 100
A+	9	91 to 100
A	8	81 to 90
A-	7	71 to 80
B+	6	61 to 70
B	5	51 to 60
B-	4	41 to 50
C+	3	31 to 40
C	2	21 to 30
C-	1	11 to 20
F	0	0 to 10

**EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS-
(FOR REVISED SYLLABUS)
SEMESTER – I & II**

Sr. No.	Title of Old Paper	Title of New Paper
1.	PAPER-I : CHEMISTRY OF PESTICIDES AND THEIR FORMULATIONS-I	PAPER-I : CHEMISTRY OF PESTICIDES AND THEIR FORMULATIONS-I
2.	PAPER-II : SOIL SCIENCE, FERTILIZERS and MICRONUTRIENTS	PAPER-II : SOIL SCIENCE, FERTILIZERS and MICRONUTRIENTS
3.	PAPER-III: INTRODUCTORY AND INDUSTRIAL ENTOMOLOGY	PAPER-III: INTRODUCTORY AND INDUSTRIAL ENTOMOLOGY
4.	PAPER-IV : CROP DISEASES AND WEEDS	PAPER-IV : BASIC CONCEPTS IN PLANT PATHOLOGY
5.	PAPER-V : CHEMISTRY OF PESTICIDES AND THEIR FORMULATIONS-II	PAPER-V : CHEMISTRY OF PESTICIDES AND THEIR FORMULATIONS-II
6.	PAPER-VI: ANALYTICAL TECHNIQUES FOR AGROCHEMICALS	PAPER-VI: ANALYTICAL TECHNIQUES FOR AGROCHEMICALS
7.	PAPER-VII : ECONOMIC ENTOMOLOGY	PAPER-VII : ECONOMIC ENTOMOLOGY
8.	PAPER-VIII : BIOTECHNOLOGICAL ASPECTS IN PLANT PROTECTION	PAPER-VIII : BIOTECHNOLOGICAL ASPECTS IN PLANT PROTECTION

SEMESTER – III & IV

Sr. No.	Title of Old Paper	Title of New Paper
9.	PAPER-IX : PESTICIDE RESIDUES AND TOXICOLOGY	PAPER-IX : PESTICIDE RESIDUES AND TOXICOLOGY
10.	PAPER-X : ADVANCES IN PEST CONTROL-I	PAPER-X : PESTS OF CROP PLANTS AND THEIR CONTROL- I
11.	PAPER-XI: ANALYSIS OF AGROCHEMICALS	PAPER-XI: ANALYSIS OF AGROCHEMICALS
12.	PAPER -XII : PEST AND DISEASES OF CROP PLANTS-I	PAPER -XII : DISEASES OF CROP PLANTS AND THEIR CONTROL-I
13.	PAPER-XIII : AGRO-BASED MARKETING MANAGEMENT	PAPER-XIII : AGRO-BASED MARKETING MANAGEMENT
14.	PAPER-XIV: ADVANCES IN PEST CONTROL-II	PAPER-XIV: PESTS OF CROP PLANTS AND THEIR CONTROL-II
15.	PAPER-XV : MANUFACTURES OF AGROCHEMICALS	PAPER-XV : MANUFACTURES OF AGROCHEMICALS
16.	PAPER-XVI : PESTS & DISEASES OF CROP PLANT-II	PAPER-XVI : DISEASES OF CROP PLANTS AND THEIR CONTROL-II

SPECIAL INSTRUCTIONS, IF ANY.	
i)	Study tour for M.Sc. Part II students to visit tissue culture laboratories, Biocontrol laboratory, Agricultural research institutes, field farms ,Fertiliser and pesticide industries etc.
ii)	Field visits for M.Sc. part I and II students – To study the agronomy, pest and diseases of crop plants, soil, water quality nearby Kolhapur, Sangli, Satara and Western Ghats of Sahyadri region.
iii)	One month industrial training in pesticides and fertilizer industries (R and D as well as Quality control section), National agricultural research institute, field survey in Agrobased industries.
iv)	To work in field laboratory at Shivaji University campus day per week. To study the Agronomy, plantation of medicinal plants. This work will be done by the student with collaboration with the other science departments in the campus.
v)	To arrange guest lectures of eminent scientists in the field of agricultural chemistry, well knowm farmers, past students of the department, Persons in Agricultural marketing management.