



DEVI AHILYA VISHWAVIDYALAYA, INDORE

School of Life Sciences

1.1.2

Minutes of the Meetings and Changes in Syllabus



Board of Studies meeting

Subject - Life Sciences, 16/12/15

meeting of the B. of Studies was held on 16/12/15 at 3PM. Following members were present in the meeting.

- Dr. K. H. Guruswami
- Dr. S. Chandel
- Dr. G. P. Pandey
- Dr. A. Kar
- Dr. K. Hajela
- Dr. A. Jajou

- Following members were absent.
- 1. Dr. S. Patil
 - 2. Dr. T. Banerjee
 - 3.

Following decision was taken.

1) Modified syllabus as provided by the individual teachers are approved. The ~~date content~~ ^{papers along with the credits} as decided by in the faculty meeting (this month) will be adopted.

2) Following members were co-opted as external members.

1. Prof. Ashok Mejjal

a. Head, Biochemistry & Genetics
Barkatullah University
Bhopal (M.P.) Ph. 8109043700

b. Prof. D.M. Kumawat

Head, Dept. of Environment & Management
Vikram University
Ujjain (M.P.) Ph. 9925379989

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16/12/15
K. Hajela
16.12.15

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16/12/15

28/02/2015

Board of Studies Meeting

Subject: Life Science

M.Phil. Syllabus

held on 28/2/2015

The committee in its meeting has taken the following decisions:

- (1) M.Phil course for the session 2014-15 will be of 3 semester, Total 90 credits.
- (2) In the Ist semester, following subjects will be offered:

Ist semester:

<u>Name of subject</u>	<u>credits</u>
(i) Research Methodology I	4 credits
(ii) Research Methodology II	4 credits
(iii) Computer Application	4 credits
(iv) Review of Literature	6 credits
(v) Comp. viva voce.	4 credits
(vi) Elective Paper I	4 credits
(vii) Elective Paper II	4 credits
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Total = 30 credits	

IInd semester:

- (i) Term Paper / Assignment (3) : 03 credits
 - (ii) Seminar - 1 : 03 credits
 - (iii) Mid term dissertation & Project Presentation : 20 credits
 - (iv) Comprehensive viva voce : 04 credits
-
- Total = 30 credits

IIIrd semester:

- (i) Final dissertation / Project Presentation = 26 credits
 - (ii) Comprehensive viva voce = 04 credits
-
- Total = 30 credits

Total credits of I, II & IIIrd semester = 90 credits

... .. students in

(4) Practical / Project dissertation will be carried by the students in IInd & IIIrd semester. No Practical work will be carried out in the Ist semester.

(5) Detailed syllabus content of Research Methodology, Computer Application & Elective papers are submitted

Signature of Members Present
Anand Kumar
28/2/15

Anand Kumar
28/2/15

Anand Kumar
28/2/2015

Anand Kumar
28/2/15

Following members did not attend the meeting held on 28/2/2015:

1. Dr. K. N. Ganesprasad.

2. Dr. Anand Kumar

3. Dr. Vinod Thakur

Board of Studies meeting

Subject: Life Sciences.

Date: 16/5/2016.

A meeting ^{of the} board of studies of Life Sciences, was held on 16/5/2016 at 3PM. Following members were present in the meeting:

Dr. G.P. Pandey

Dr. A. Kar

Dr. K. Hajala

Dr. A. Jais

Dr. T. Banerjee.

Following members were absent.

Dr. S. Patil.

Dr. K.N. Gureprasad.

Dr. Ashok Menjal of Hospital

Dr. D.M. Kurant of Ujjain.

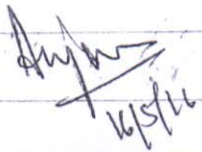
Dr. SURESH CHAND. & DR. Pooja PANWAR.

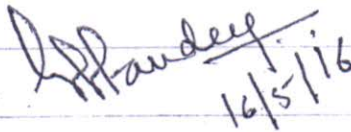
Following discussions were taken.

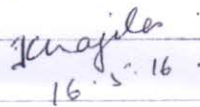
① Syllabus for B.Sc. (Life Science) is approved.

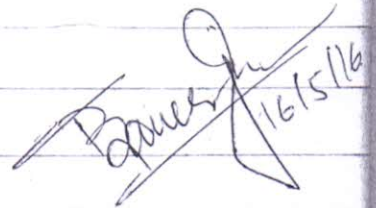
② Outline of the syllabus for session 2016-17 was discussed and was prepared to be finalized in the next meeting, prepared on 3rd week of June 2016. Details of the individual paper will be approved in the coming meeting.


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16.5.16


16/5/16

Meeting of the B. of Studies, 25.11.2017

As proposed by Academic section of DAVV, Indore, a meeting of the Board of Studies in Life Science was held in School of Life Science, at 1.00 PM on 25.11.2017. The undermentioned members were present.

1. Dr. A. Kar
2. Dr. G. P. Pandey
3. Dr. S. Chand
4. Dr. A. Jaisri

As documents related to the agenda were not available, the meeting had to be postponed.

1. Documents (1-3) were not made available
2. Quorum (as required) was not complete today.
3. For the next meeting, केंद्रीय इकाय, मनुष्य शास्त्र विभाग, मध्य प्रदेश विश्वविद्यालय, इंदौर, Ph.D. course work syllabus of सर्व प्रमुख विषय of the course.

Kar
25.11.2017.

G. P. Pandey
25/11/17

S. Chand
25/11/2017

A. Jaisri
25/11/17

Dy Registrar (Acad) 25/11/17

Board of Studies meeting

Subject: Life Sciences.

Date: 16/5/2016.

The board of studies of Life Sciences, was held on 16/5/2016 at 3PM. Following members were present in the meeting.

Dr. G. P. Pandey

Dr. A. Kaur

Dr. K. Hajela

Dr. A. Jais

Dr. T. Banerjee.

Following members were absent.

Dr. S. Patil.

Dr. K. N. Guruswami.

Dr. Ashok Manjari of Kolhapur

Dr. D. M. Kurant of Ujjain.

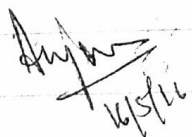
* SURESH CHAND. & DR. Pooja PANWAR.

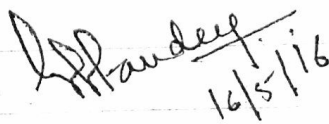
Following decisions were taken.

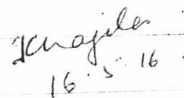
① Syllabus for B.Sc. (Life Science) is approved.

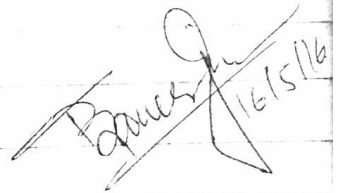
② Outline of the syllabus for session 2016-17 was discussed and was prepared to be finalized in the next meeting, prepared on 3rd week of June 2016. Details of the individual paper will be approved in the coming meeting.


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16.5.16


16/5/16

Board of Studies meeting

Sub: Life Science, Date: 23/9/2016.

A meeting of the board of studies of Life Sc. was held on 23/9/2016. Following members were present

~~Dr. J. P. Pandey (Dean)~~

Dr. A. Rao, Dr. K. Hajela, Dr. K. N. Prasad, Dr. A. Jais and Dr. T. Banerjee

Following decisions were taken:

1. Details syllabus for M.Phil & Ph.D course work was discussed and final syllabus will be prepared and sent to the unit by 27/9/2016.
2. Scheme of Entrance exam was also discussed and the outline was prepared. Details will be sent later.
3. As per the new guideline, credit system for M.Phil and Ph.D. course work will be as follows:

	Credits
(i) Research methodology	04
(ii) Review of published res.	03
(iii) Computer application	03
(iv) Advance course in their own field	03
(v) Comprehensive viva voce	03

~~Dr. A. Rao~~
23/9/16

~~Dr. K. N. Prasad~~
23/9/16

~~Dr. A. Jais~~
23/9/16

~~Dr. K. Hajela~~
23/9/16

(Dr. A. Rao)

~~Dr. J. P. Pandey~~
23/9/16

~~Dr. T. Banerjee~~

Meeting of the B. of Studies, 5/12/17

Subj - Life Sciences.

A meeting of the Board of Studies in Life Sciences was held on 5.12.17 at 3PM at RNT marg. Following members were present in the meeting.

1. Dr. A. Kar.
 2. Dr. S. Chand
 3. Dr. K. Hajela
 4. Dr. A. Tajoo
 5. Dr. T. Banerjee
- + Special invitee - Dr. A. K. Singh (EMRC) for discussion on MOCS.
Following discussion/decisions were taken.

Little modification in the syllabus for PhD course work in Life Science is required.

Unit-1 in course - II (Research Methodology in L.Sc.)
Genetics
" - In course of Plant

S.No.	Name of Paper	Subject	Credit
1	Biochemistry and Cell Biology	Life Science	3
2	Environmental Biology, Genetics and Evolution	Life Science	3
3	Morphology, Developmental Biology and Physiology of Angiosperms	Life Science	3
4	Morphology, developmental biology and Physiology of mammals	Life Science	3
5	Microbiology, Immunology and Animal cell culture	Life Science	3
6	Molecular Biology, Genetic Engineering and Plant Tissue Culture	Life Science	3
7	Environmental Studies (Basic Foundation Course)	Environmental Studies	4

On the proposed modules in "MOCS", above list of course (modules)/papers as per semester system adopted earlier are approved, which may be offered under MHRO/UGC regulation for MOCS by DAU, Indore. However, in future, the course contents may be revised as per then existing syllabus.

Aug 17/17

Banerjee

5.12.17.

5.12.17

05/12/17

— Meeting of Board of Studies in Life Sciences.

Agenda: B.Sc. (Life Sci.) syllabus for 1st year, 2nd & 3rd year.

A meeting of B.O.S. in Life Science was held on 8/9/17 at 3 PM in RMT office of DAVU. Following members were present.

- ① Dr. A. Kar, ② Dr. K. Hajela ③ Dr. S. P. Pandey
- ④ Dr. A. Jaiswal and ⑤ Dr. T. Banerjee.

Following decisions were taken.

- ① B.Sc. (Life Sci.) syllabus was outlined on a four annual system.

Structure is mentioned below.

1st year.

Paper-I - Introduction to Biochemistry, Cell-Biology & Biodiversity.

Paper-II: Environmental Biology, Genetics & Evolution.

2nd year

Paper-III. Morphology, Dev. Biology & Physiology of Angiosperms.

Paper IV: Morphology, Developmental Biology & Physiology of mammals.

3rd year.

Paper-V. Microbiology, Immunology & Animal cell culture.

Paper-VI Molecular Biology, Genetic Engineering & Plant tissue culture.

7 days.

Meeting ended with thanks to all the members & the special invites (Dr. Nagar and Dr. A. Subap) of Indore.

Dr.
08/9/17.

Jayidev
8.9.17.

Anjan
8/9/17

Ramesh
8/9/17.

Lakshman

Anand
08.09.2017

Board of Studies meeting

Subject - Life Sciences, 16/12/15

A meeting of the B. of Studies was held on 16/12/15 at 3PM. Following members were present in the meeting.

Dr. K. N. Guruprasad

Dr. S. Chandel

Dr. G. P. Pandey

Dr. A. Kar

Dr. K. Hajela

Dr. A. Tajor

Following members were absent.

1. Dr. S. Patil

2. Dr. T. Banerjee

3.

Following decision was taken.

① Modified syllabus as provided by the individual teachers are approved. The ~~course content~~ ^{papers along with the credits} as decided by in the faculty meeting (this month) will be adopted.

② Following members were co-opted as external members.

③ Prof. Ashok Mejjal

a. Head, Biochemistry & Genetics
Barkatullah University

Bhopal (M.P.) Ph. 8109043700

b. Prof. D. M. Kumawat,

Head, Dept. of Environment & Management
Vikram University

Ujjain (M.P.) Ph. 9925379989

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Dr. G. P. Pandey

Dr. A. Kar

Dr. K. Hajela

Dr. A. Tajor

Following members were absent.

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Barkatullah University

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b. Prof. D. M. Kumawat

Head, Dept. of Environment & Management
Vikram University

Ujjain (M.P.) Ph. 9925379989

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M.Sc. (Life Science) course effective from June / July 2017

Semester	Code	Course / Paper Title	Credit		Total Credit	Credits in Semester
			TH.	Pr.		
I	LSC-601	Bio-Chemistry	3	1	4	
	LSC-611	Analytical Techniques	3	1	4	
	LSC-621	Cell-Biology	3	1	4	
	LSC-631	Basic Genetics	3	1	4	
	LSC-641	Biostatistics, Bioinfo. & computers	2		2	22
	LSC-651	Basic Microbiology	3	1	4	
II	LSC-602	Immunology	3	1	4	
	LSC-612	Molecular Biology & Genetic Engg.	3	1	4	
	LSC-622	Environmental Biology	3	1	4	
	LSC-632	Animal Physiology	3	1	4	
	LSC-642	Elective I	3		3	
	LSC-652	Elective II	3		3	22
III	LSC-603	Plant Metabolism	3	1	4	
	LSC-613	Plant Biotechnology : Tissue & Cell Culture	3	1	4	
	LSC-623	Biodiversity & toxicology	3	1	4	
	LSC-633	Elective I	3		3	
	LSC-643	Elective II	3		3	18
IV	LSC-604	Project work (Quality, Presentation & Timely Submission)	10 + 2		12	12
		Comprehensive Viva-Voce	4 Credits / Sem		16	16
		Total Credits for the Program				90

Praveen 5/7/17
As Anjan 5/7/17
Ranjana Singh 5/7/17
Pradeep 5/7/17
Thomas 5.7.17

SYLLABUS FOR Ph.D. COURSE WORK (LIFE SCIENCES)

COURSE	TITLE	CREDITS
Course - I	Research Methodology	5
Course - II	Computer Applications	3
Course - III	Review of Literature	3
	Comprehensive viva	4

COURSE – I- RESEARCH METHODOLOGY

Objective: To gain theoretical knowledge and practical experience about various methodologies commonly employed in research field of Life Sciences.

Units- I Aseptic methods	Preparation and sterilization of solid and liquid culture media. Techniques of plant tissue and cell culture : Explant culture, anther and pollen culture, protoplast culture and protoplast fusion. Sources of type strains of microorganisms. Revival of cultures from lyophilized ampoules. Preservation and maintenance of microbial cultures. Fermentation: Submerged and solid state fermentations. Design of a typical laboratory fermentor.
Unit – II Analytical methods	Chromatography: Principle, design and applications of TLC, GC and HPLC. Electrophoresis: Agarose and Polyacrylamide Gel Electrophoresis (PAGE, SDS PAGE) Centrifugation: Types of rotors, Ultracentrifugation. Spectroscopy: Basic principles and applications of UV-Visible spectrophotometry and Spectrofluorophotometry. Chl <i>a</i> induction and kinetic measurement. Various assay procedures: Bioassay, hormone assay by RIA and ELISA. Safety evaluation of a drug/compound.
Unit – III Methods in Physiology	Terrestrial and extra-terrestrial solar radiations Action and absorption spectra, Photobiological responses and photoreceptors. Artificial and natural light sources, Spectrograph and monochromatic radiation sources. Measurement of light and quantification of response. Responses induced by phytochrome, cryptochrome and UV-B photoreceptors Inter relationship between light and growth hormones. <i>Basic principles and Management of laboratory animals:</i> Experimental design for pre-clinical studies; <i>In vivo</i> and <i>in vitro</i> methods. Administration of drugs by different methods. Collection of blood and tissue samples, Different surgical techniques. Methods for animal behavior and bio-rhythm studies.
Unit – IV Immunological methods	Production of antibodies from laboratory animals. Monoclonal antibodies. Western blot and methods of band detection. Isolation of various immune cells and their functional assays. Proteomics, methods and applications
Unit – V Methods in Molecular biology	Isolation, purification and separation of nucleic acids. Hybridization techniques- Southern and Northern Blotting, Polymerase chain reaction and its applications. DNA sequencing methods (Sanger, Maxam & Gilbert). Microarray, RT PCR.

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9/2/13

1
9/2/13

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9/2/13

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9/2/13

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 4. Dr. A. Tajo
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5.12.17

5/12/2017