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UNIVERSITY OF MYSORE



Estd. 1916

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No.AC.2(S)/401/13-14

Dated: 24-05-2014

NOTIFICATION

Sub: Minor Modification of the existing Syllabus of M.Sc.Applied Zoology.

Ref: 1. Proceedings of Faculty of Science & Technology Meeting held on 14-02-2014.
2. Proceedings of the Meeting of Academic Council held on 29-03-2014.

The Board of Studies in **Applied Zoology (PG)** at its meeting held on 03-12-2013 has resolved to recommend Minor modification in the existing M.Sc Applied Zoology syllabus from the academic year 2014-15.

The Faculty of Science and Technology and the Academic Council at their meetings held on 14-02-2014 and 29-03-2014 respectively approved the above proposals and the same is hereby notified.

The copy of the Minor modification in the existing M.Sc Applied Zoology syllabus is annexed herewith.

J. S. Sampath
REGISTRAR. 24/5/14
UNIVERSITY OF MYSORE
MYSORE

To

1. The Registrar (Evaluation), University of Mysore, Mysore.
2. The Chairperson, BOS/DOS in Applied Zoology, MGM
3. The Dean, Faculty of Science & Technology, DOS in Zoology, MGM.
4. The Principals of the Affiliated Science Colleges.
5. The Deputy/Assistant Registrar (Evaluation), University of Mysore, Mysore.
6. Sri Narasimha Murthy, Statistician, E.B. UOM, Mysore.
7. The Supdt AC.1 & AC.2, A.B., Academic Section / PMEB, UOM, Mysore.
8. The P.A. to the Vice-Chancellor/Registrar/Registrar (Evaluation)UOM, Mysore.
9. The Case Worker, AC.7, Academic Section, University of Mysore, Mysore.
10. The Section Guard File(Supdt.AC.2), A.B., A.C., UOM.
11. The Schedule File.

Annexure A
Modified Course structure and Paper detail of M. Sc., Applied Zoology for 2014-15 batch on wards

I Semester

Semester	Title of the papers	HC/SC	Credit pattern L:T:P	Total Credit
I SEM	Animal Systematics	HC	3:0:2	5
	Animal Physiology	HC	3:0:2	5
	Cell Biology & Genetics	HC	3:0:2	5
	Wildlife Biology & Conservation*	SC	3:1:0	4
	Evolution*	SC	3:1:0	4
	Biostatistics*	SC	3:1:0	4
Total credits				19

*Students have to opt any one soft core papers in this semester

II Semester

Semester	Title of the papers	HC/SC	Credit pattern L:T:P	Total Credit
II SEM	Aquaculture & Fishery Technology	HC	3:0:2	5
	Apiculture & Vermiculture	HC	3:0:2	5
	Applied Ecology	HC	3:0:2	5
	Endocrinology*	SC	3:1:0	4
	Ethology*	SC	3:1:0	4
	Parasitology**	OE	3:1:0	4
	Ornithology**	OE	3:1:0	4
	Economic Zoology**	OE	3:1:0	4
Total credits				19

*Students have to opt any one soft core paper in this semester

** Non Applied Zoology M. Sc., Students have to opt any one open elective paper in this semester

III Semester

Semester	Title of the papers	HC/SC	Credit pattern L:T:P	Total Credit
III SEM	Animal Husbandry	HC	3:0:2	5
	Animal Biotechnology	HC	3:0:2	5
	Immunology & Toxicology*	SC	3:0:2	5
	Reproductive Biology*	SC	3:1:0	4
	Sericulture*	SC	3:1:0	4
	Sericulture Technology**	OE	3:1:0	4
	Basics of Zoology**	OE	3:1:0	4
Total credits				23

*students have to opt any two soft core papers in this semester.

** Non Applied Zoology M. Sc., Students have to opt any one open elective paper in this semester

IV Semester

Semester	Title of the papers	HC/SC	Credit pattern L:T:P	Total Credit
IV SEM	Zoo Management	HC	3:1:0	4
	Biodiversity*	SC	3:1:0	4
	Vector Biology*	SC	3:1:0	4
	Major project	PRJ	0:2:6	8
Total credits				16

*Students have to opt any one soft core paper in this semester

Annexure B
Syllabus for Immunology and Toxicology (Soft Core Paper) M. Sc./, Applied Zoology III Semester

Immunology & Toxicology (L3+T0+P2) 48 hours
Immunology

UNIT I Fundamentals of Immunology 12 Hours

- 1.1 .History, development and scope of immunology
- 1.2. Immunity-classification-innate, acquired, active and passive immunity
- 1.3. Lymphoid organs-Primary and secondary lymphoid organs
- 1.4. Antigens and antibodies,
- 1.5. Immune responses-Primary and secondary immune, humoral and cell mediated responses
- 1.6. The compliment system-Classical and alternative pathways

UNIT II- Cells, organs and tissues of Immunity 12 Hours

- 2.1. Major histocompatibility complex-MHC antigens, HLA Functions of MHC
- 2.2. Hypersensitivity-Types, prevention and treatment
- 2.3. Tumor immunology
- 2.4. Immunology of transplantation
- 2.5. Autoimmune diseases
- 2.6. Immunological techniques

Toxicology

UNITIII: ESSENTIALS OF TOXICOLOGY 12 Hours

- 3.1 Definition, Scope of toxicology – Major subdivisions of toxicology
- 3.2 Factors influencing toxicity – Dosage, Route of exposure -species and strain differences, sex, age, environmental conditions.
- 3.3 .Toxicological evaluation, selection of test organisms – Acute and chronic toxicity tests. Nonacute toxicity tests.
- 3.4 Ecotoxicology and Environmental alteration of toxic substance, Biomagnifications,
- 3.5 Bioaccumulation and Biomagnification
- 3.6 Variability of responses by biological systems.

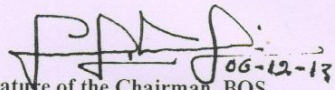
UNIT IV: SOURCES AND CELLULAR MECHANISM IN TOXICOLOGY 12 Hours

- 4.1 Toxicity of pesticides and heavy metals, mode of exposure and their action.
- 4.2 Sources and mode of action of plant toxins, Mycotoxins, microbial toxins.
- 4.3 Metabolism, detoxification and excretion of toxic substances: Primary processes, conjugation systems.
- 4.4 Tissue specific toxicity, hepato-cardiac, and renal toxicity,
- 4.5 Genotoxicity.
- 4.6 Treatment of toxicity – Principles of antidotal therapy.

Reference:

1. Dulsy Fathima and Armugam N (2007) Immunology, Saras publication, Nagercoil
2. Reddy K R. Text book of Immunology. (2007). AITBS publishers Delhi
3. W. Dekant and H.G. Neumann (1992) Tissue – specific Toxicity: Biochemical mechanisms, Academic Press, Harcourt Brace Fovanovich, Publishers, London.
4. Loomis T. A. and A. Wallace Hayes (1996) Loomis's Essentials of Toxicology, IV edition, Academic Press Ltd., London.
5. P. D. Sharma, (1999) Toxicology, Rastogi Publishers Meerut.
6. Anna M. Fan and Louis W. Chang (Ed) (1996) Toxicology and Risk assessment : principles and methods and applications, Marcell Dekker publishers, New York

7. Wayland J. Hayer, Edward R. Laws (Ed) (1991) Vol. 1, 2, and 3, Hand book of pesticide Toxicology ,Academic press, California.
8. G.G. Habermehl (1981) Venomous animals and their toxins, Springer – Verlag, Benlin.
9. Kenji Urayuchi, Mikio Yamazaki (Ed) (1978) Toxicology, Biochemistry and pathology of Mycotoxins. Halsted press book Kadansha Ltd., Tokyo.
10. R. Prakash (Ed) (1989) Recent trends in Toxicology, Agarwal Printers, Meerut, India.
11. Charles A. Tyson & John M. Frazier (1993) Methods in Toxicology Vol.1 Academic Press, London.
11. F. Moriarty (1983) Ecotoxicology, II edition, Academic Press, London.
12. Shashi Kanth (1989) Trends in environmental pollution and pesticide toxicology, Jagmandar Book Agency, New Delhi
13. Duffus J. H. (1980) Environmental Toxicology, Edward Arnold Publishers London.


Signature of the Chairman, BOS
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