

From

Dr. Ankit Magotra
Assistant Professor cum Course Coordinator (Animal Sciences)
Dept. of Animal Genetics and Breeding,
COVS, LUVAS, Hisar.

To

The Prof. & Head
Dept. of AGB, ANN, LPM, VPB, LPT, LFC and VAHEE
COVS, LUVAS, Hisar

Memo No. AGB/2019/AM/ 925A-963A

Dated: 29.3.2019

Subject: Deputation of faculty members for delivering lectures in comprehensive training for JRF (ICAR) in Animal Sciences.

With reference to subject cited above, I would like to inform you that worthy Vice- Chancellor has permitted to conduct training of B.V.Sc. & A.H. students of COVS for the preparation of Junior Research Fellowship (JRF) examination in Animal Sciences. The training will be conducted from 24nd April to 14th May, 2019. Therefore, it is requested to depute the concerned faculty members of your department as per the list attached for delivering lecture(s) in above said training. All the speakers are also requested to prepare their lectures in PPT for presentation and submit the soft copy (MS Word file) of write up along with 20-30 questions of their respective topics to the undersigned. The venue will be Committee room., Department of Animal Genetics and Breeding, COVS, LUVAS.



Dated: 29.3.2019

(Ankit Magotra)
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Encl.: List of lectures with date and time

CC: 1. SPS to Vice Chancellor, LUVAS, Hisar for kind information of worthy Vice-Chancellor, LUVAS, Hisar
2. Dean, COVS, for kind information
3. HOD, AGB, for kind information
4. Dr. Sajjan Sihag, Principal Scientist cum Course Director, Department of Animal Nutrition
5. LUVAS website incharge
6. Internship Incharge

**LECTURE SCHEDULE
OF
COMPREHENSIVE TRAINING OF B.V.SC. AND A.H. STUDENTS FOR JRF, ICAR**

Duration: 21 days (24th April to 14th May, 2019)

Major Subject Group – Animal Sciences

Course Director: Dr. Sajjan Sihag, Principal Scientist, Department of Animal Nutrition

Course Coordinator: Dr. Ankit Magotra, Asst. Professor, Animal Genetics and Breeding

Venue: Committee Room, Department of Animal Genetics and Breeding, COVS, LUVAS

| Sr. No | Date | Time | Topic | Instructor |
|--------|-----------|---------|--|--------------------|
| 1. | 24.4.2019 | 4.00PM | Principles & steps of extension education, community development – aims, objectives, organizational setup and concept evolution of extension in india, extension teaching methods. | Dr. Rajesh Kumar |
| 2. | 25.4.2019 | 4.00PM | Animal Husbandry development planning and programme, key village scheme, ICDO, Gosadan, Goshala | Dr. Gautam |
| 3. | 25.4.2019 | 5.00PM | Concept of sociology, differences between rural, tribal and urban communities, social changes, factor of changes. | Dr. S. S. Sangwan |
| 4. | 26.4.2019 | 4.00PM | International trade/WTO/IPR issues related to livestock products (Meat and Milk Products) | Dr. Ashok Malik |
| 5. | 27.4.2019 | 4.00PM | Processing and preservation of meat products. | Dr. Sanjay Yadav |
| 6. | 27.4.209 | 5.00PM | Processing and preservation of milk products. | Dr. Monika Khatter |
| 7. | 28.4.2019 | 12:00 N | Important breeds of livestock, status of dairy and poultry and impact of livestock farming in Indian agriculture. | Dr. Vishal Sharma |
| 8. | 28.4.2019 | 1.00PM | Housing, Production, reproduction and lactation management of dairy animals | Dr. Subhasis Sahu |
| 9. | 29.4.2019 | 4.00PM | General concepts of livestock production and management | Dr. Sandeep |
| 10.. | 29.4.2019 | 5.00PM | Management of swine, equine and laboratory animals | Dr. Dipin |
| 11. | 30.4.2019 | 4.00PM | Important breeds of poultry and their management at different stages of growth and production | Dr. Devender Singh |
| 12. | 1.5.2019 | 2.00PM | Digestion –control motility and secretion of alimentary tract. Physiology of immune system. Blood Coagulation. | Dr. Sandeep Kumar |

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| 13. | 1.5.2019 | 3.00PM | Mechanism, natural and chemical control of respiration, gaseous exchange and transport, high altitude, physiology of work and exercise. Cardiac cycle, natural control of cardiovascular system. | Dr. Jyotsana Madan |
| 11. | 2.5.2019 | 2.00PM | Male and female reproduction including artificial insemination, in-vitro fertilization, Cryo-preservation. Excretory system. Smooth and skeletal muscle contraction. | Dr. Meenakshi Virmani |
| 15. | 3.5.2019 | 2.00PM | Classification of Carbohydrates, Proteins & fats. Principles of feed formulation. | Dr. Nancy Sheoran |
| 16. | 4.5.2019 | 2.00PM | Classification of feed, fodder, unconventional feeds, common anti-nutritional factors and principles of feed formulation. | Dr. Sajjan Sihag |
| 17. | 4.5.2019 | 3.00PM | Importance of water, minerals, vitamins and feed additives in livestock and poultry. Energy partition - measures of protein quality in ruminants and non-ruminants. | Dr. R. S. Berwal |
| 18. | 5.5.2019 | 11.00AM | Role of livestock in economy, identifying social taboos, social differences and obstacles in the way of organizing developmental programme., Role of gram Panchayat in livestock development. | Dr. Rachna |
| 19 | 5.5.2019 | 12.00N | Concept of marketing, principles of co-operative societies. | Dr. Sumit Mahajan |
| | 5.5.2019 | 1.00PM | TEST SERIES | |
| 20. | 6.5.2019 | 11.00AM | Population Genetics: Introduction to population genetics; individual vs population. Genetic structure of population: Gene and genotypic frequency. Hardy - Weinberg law and its application. Forces changing gene and genotypic frequencies (eg Mutation, migration, selection and drift). | Dr. Sunil Kumar |
| 21. | 6.5.2019 | 12.00N | Basics of statistics, data analysis and computational techniques. | Dr. Yogesh Bangar |
| 22. | 7.5.2019 | 11.00AM | Methods of conservation- livestock and poultry conservation programmes in the state and country | Dr. Kamaldeep |
| 23. | 7.5.2019 | 12.00N | Systems of utilization of heterosis; Selection for combining ability (RS and RRS). Breeding strategies for the improvement of dairy cattle and buffalo. Breeding strategies for the improvement of sheep, goat, swine and poultry. Sire evaluation. Open nucleus breeding system (ONBS). | Dr. C.S.Patil |
| 24. | 8.5.2019 | 2.00PM | Preservation of green fodder, processing of feeds, pelleting and block making. | Dr. Sajjan Sihag |
| 25. | 8.5.2019 | 3.00PM | General nutrition and proximate principles of feed analysis | Dr. Zile S. Sihag |
| 26 | 9.5.2019 | 2.00PM | Digestion and Metabolism of Carbohydrates, Proteins and fats in non-ruminants and ruminants | Dr. N. S. Maan |

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| 27. | 10.5.2019 | 2.00PM | Principles of animal genetics and Mendel's Law. Cell structure and multiplication. | Dr. A.S. Yadav |
| 28. | 11.5.2019 | 11.00AM | Multiple alleles; lethals; sex-linked, sex limited and sex influenced inheritance. Sex determination. Linkage, crossing over and construction of linkage map. Mutation, Chromosomal aberrations. Cytogenetics, Extra-chromosomal inheritance. Introduction to molecular techniques | Dr. Manoj Verma |
| 29. | 11.5.2019 | 12.00N | Principles of molecular genetics, genetic code, quantitative & qualitative traits, Breeds, livestock census, Selection of Breeding methods in livestock and poultry. Population statistics of livestock | Dr. Poonam Ratwan |
| 30. | 12.5.2019 | 11.00AM | Quantitative vs qualitative genetics; concept of average effect and breeding value. Components of Variance. Concept of correlation and interaction between Genotype and Environment. Heritability and Repeatability. Genetic and Phenotypic Correlations. | Dr. Ankit Magotra |
| 31. | 13.5.2019 | 2.00PM | Selection, types of selection, response to selection and factors affecting it. Bases of selection: individual, pedigree, family, sib, progeny and combined, indirect selection. Method of selection, Single and Multi-trait. | Dr. S.P.Dahiya |
| 32. | 14.5.2019 | 2.00PM | Mating system: Inbreeding & Out breeding Breeding schemes/programmes for improvement of different species of livestock | Dr. D. S. Dalal |
| | 14.5.2019 | 5.00PM | TEST/FEEDBACK | |



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