



**Directorate of Extension Education (DOE)**  
**Ministry of Agriculture & Farmers Welfare, Govt. of India**  
 Department of Veterinary Gynaecology and Obstetrics  
**Directorate of Extension Education**  
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**Schedule of Model Training Course (MTC) sponsored by Directorate of Extension (DOE), Ministry of Agriculture & Farmers Welfare during 2017-18, to be held in the Department of Veterinary Gynecology and Obstetrics from 15/11/2017 to 22/11/2017.**

<b>Chief Patron</b> <b>Dr Amarjit Singh Nanda</b>		<b>Patron</b> <b>Dr Harish Kumar Verma</b>	
<b>Course Director</b> <b>Dr Prahlad Singh</b>	<b>Course Coordinators</b> <b>Dr Sumit Singhal</b> <b>Dr Narinder Singh</b>		<b>Associated Scientists</b> <b>Dr VK Gandotra</b> <b>Dr Mrigank Honparkhe</b> <b>Dr Ajeet Kumar</b> <b>Dr AK Singh</b> <b>Dr VS Malik</b> <b>Dr Shahbaz Dhindsa</b> <b>Dr Navdeep Singh</b>

### SCHEDULE

Day	Time (Hrs)	Lecture/ Practical	Title of the Lecture/ Practical	Scientist/s
01	09:00	-	Registration and orientation programme.	Dr Ajeet Kumar Dr Sumit Singhal
	09:30	-	Overview of the Training Programme and of Veterinary University Extension Services	Dr HK Verma
	10:00	-	Activities in Brief of College of Veterinary Science and University	Dr Parkash S Brar
	10:30	-	Visit to the facilities in Embryo Transfer.	Dr VS Malik Dr Narinder Singh
	14:00	L-1	Reproductive endocrinology and follicular development.	Dr Mrigank Honparkhe
	15:00	P-1	Examination of animals for evaluation as donors and recipients.	Dr Sumit Singhal Dr Shahbaz S Dhindsa Dr Navdeep Singh
02	09:00	L-2	Selection of donors and recipients based on ultrasonography evaluation of ovaries.	Dr Mrigank Honparkhe
	10:00	L-3	Superovulation-use of follicle stimulating hormones, mechanisms of follicular maturation, ablation & ovulation.	Dr Prahlad Singh
	15:00	P-2	Commencement of superovulatory regimen through the application of Ultrasound technique	Dr Mrigank Honparkhe Dr Sumit Singhal
03	09:00	L-4	Heat detection methods for donors and recipients	Dr AK Singh
	10:00	L-5	Breeding strategies and techniques in reference to Embryo transfer programme.	Dr Shahbaz S Dhindsa
	15:00	P-3	Observations in Heat detection for signs and recording of symptoms	Dr AK Singh Dr Navdeep Singh
04	09:00	L-6	Strategies for Synchronization and superovulation in dairy cows.	Dr VK Gandotra
	10:00	L-7	Quality semen production for embryo transfer technology	Dr Ajeet Kumar
	15:00	P-4	Laboratory sensitization and media preparation for embryo transfer technology	Dr Sumit Singhal Dr VS Malik
	16:00	P-5	Semen preparation for assisted reproductive technologies	Dr Ajeet Kumar Dr Ashwani K Singh
05	09:00	L-8	Methodologies for embryo flushing and recovery.	Dr Narinder Singh
	10:00	L-9	Embryo searching, recovery and grading.	Dr Sumit Singhal
	15:00	P-6	Flushing of donors for embryo recovery-I	Dr Prahlad Singh
	16:00	P-7	Evaluation of embryos for transfer and freezing	Dr Narinder Singh Dr Sumit Singhal
06	09:00	L-10	Techniques of transferring embryos-palpation of cervix, uterus, ovaries, follicles & corpora lutea.	Dr Narinder Singh
	10:00	L-11	Evaluation of Embryos for transfer and freezing	Dr Sumit Singhal
	15:00	P-8	Embryo transfer technique in recipients	Dr Prahlad Singh Dr Narinder Singh Dr Sumit Singhal
07	09:00	L-12	Cryopreservation techniques for embryos using ethylene glycol and glycerol	Dr Ajeet Kumar

	10:00	L-13	Preparation of frozen-thawed embryos for transfer	Dr Narinder Singh
	15:00	P-9	Cryopreservation of embryos for future use. Thawing of frozen embryos for transfer in recipients.	Dr Prahlad Singh Dr Narinder Singh Dr Sumit Singhal
08	09:00	L-14	Need and Opportunities of skill development in Embryo Transfer Technology in Farm Animals: A field perspective.	Dr HK Verma
	10:00	L-15	Inputs and Record Keeping for embryo production	Dr Sumit Singhal
	11:00	L-16	Economics and Sanitation of embryos for use	Dr VS Malik
	15:00	—	Inputs and Record Keeping for embryo production	Dr Sumit Singhal
	16:00	—	Valedictory and concluding session	All Faculty



(Course Director)