### Veterinary Internship: An Orientation Pack





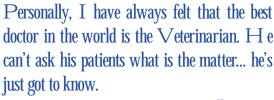




Guru Angad Dev Veterinary and Animal Sciences University Ludhiana-141004, Punjab (India)



#### FROM THE DESK OF VICE-CHANCELLOR



Will Rogers

ear interns, it is my pleasure to welcome you to the final and most interesting stage of your degree program, The Internship. I know what hard work you have put through to get up to this mark, and I congratulate you, and wish to acknowledge your families, mentors, and supporters who have helped you.

This specially designed orientation pack will enlighten you about your duties and expectation as an intern. I shall advise you to make the most of this golden opportunity; learn to do all procedures, understand the techniques, learn about the minute aspects of diseases diagnosis and treatment and discuss your doubts with your teachers - as these things will last for a lifetime.

This one-year internship will provide you with innumerable opportunities to contribute towards the animal welfare, health of animals, humans and the environment, all the pillars of One-Health approach.

Further, you are about to undergo internship at the College of Veterinary Science, Ludhiana - a renowned leader in veterinary health care, teaching, research and extension. Many of the initiatives will have a positive impact on your experience at the university clinics, including sharpening your clinical skills, enhanced learning pathways and career preparedness.

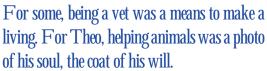
Don't be afraid to reach out if you need help and ask questions when you do not know the answers. Have fun, make the most of every opportunity that comes your way, and never forget that you belong here.

All the best for the next one year!

Dr. Inderjeet Singh Vice Chancellor Guru Angad Dev Veterinary and **Animal Sciences University** 



#### LETTER OF **WELCOME**



S.J. Taylor



ello Students of B. V. Sc. & A.H., College of Veterinary Science, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana. I welcome you to your Veterinary Internship Orientation Pack. This orientation pack will guide you to start things off on the right foot as an intern.

Further more, this internship pack will serve as your guide for the preliminary weeks as an intern, so it is definitely worth to read this pack carefully to gain knowledge about your oneyear internship, what you will learn, what will be expectations from you and all the rules and regulations which you need to follow while undergoing internship. There is a solid section containing information on the clinical procedures and future prospects after you complete your internship successfully. I am happy to welcome you as an intern, a platform where you will love to learn while practicing. I will like to congratulate that you have made it to this final step of B.V.Sc. & A.H. degree program. The one-year as an intern you will spend here will fly by, so try to avail the opportunities that the college offers, and make sure you take the time to connect with your fellow student veterinarians and teachers, because once you graduate you will all be colleagues and the memories you make here will keep you connected forever. I hope you shall also inculcate the quality of respecting your seniors and fellow peers that will form never ending bonds which you will cherish whole your life. We here want nothing but success for you.

I wish you a successful journey ahead!

Dr. Sarvpreet Singh Ghuman Dean, College of Veterinary Science Guru Angad Dev Veterinary and **Animal Sciences University** 



#### MESSAGE FROM THE **HEAD**

Most Veterinary dreams start long before training.

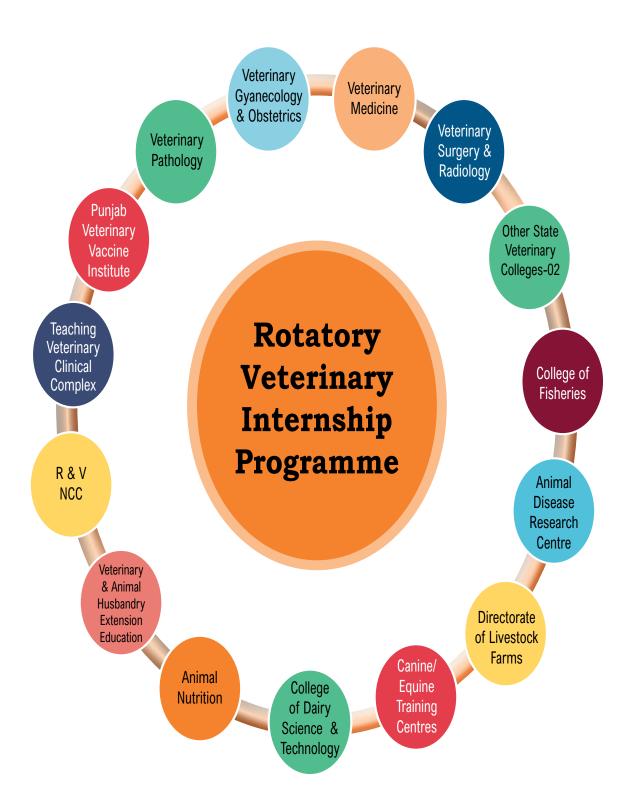
ear Students, Welcome to this wonderful period of Internship. This is the period where you can make the most of your time. You are lucky that you got full one year for that and have "Veterinary Internship: An Orientation Pack" with you for guiding you about what you can learn during this period. Dear Young vets, this is the high time during which you can clarify your doubts, hone your clinical skills and inculcate a sense of responsibility in yourself. It can only be possible if you will be punctual, own your sick animals, diagnose their problem and treat them sympathetically. One thing you must keep in mind is that make yourself accountable for the profession for which you have been put on duty by the Almighty. Vets are fantastic people chosen by Thy God and are bestowed with the most powerful talent to peep into the animal body to seek out their problems. Be healthy and do best for your sick animals so that they can become healthy. As our founder Guru Angad Dev ji advised

> ਵੈਦਾ ਵੈਦੂ ਸੁਵੈਦੂ ਤੂ ਪਹਿਲਾਂ ਰੋਗੂ ਪਛਾਣੂ॥ ਐਸਾ ਦਾਰੁ ਲੋੜਿ ਲਹੂ ਜਿਤੂ ਵੰਞੈ ਰੋਗਾ ਘਾਣਿ॥ ਜਿਤੂ ਦਾਰੂ ਰੋਗ ਉਠਿਅਹਿ ਤਨਿ ਸੁਖੂ ਵਸੈ ਆਇ॥ ਰੋਗ ਗਵਾਇਹਿ ਆਪਣਾ ਤ ਨਾਨਕ ਵੈਦ ਸਦਾਇ॥

means "O physician, you are a competent physician, if you diagnose the disease. Prescribe such a remedy, by which all sorts of illnesses may be cured. Administer that medicine which will cure the disease and allow peace to come and dwell in the body. Only when you will get rid of your own disease, O Nanak, will you be, known as physician".

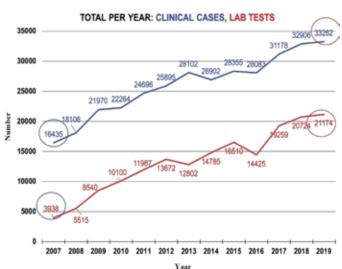
So be prepared for the challenging and exciting next year. You will have the opportunity to help countless deaf and dumb creatures both locally and globally, throughout your career as a veterinarian if you will use this time judiciously. Congratulations and best wishes for this incredible and very rewarding journey of becoming a complete veterinarian. I wish you a great success in your professional endeavors.

Dr. Swaran Singh Randhawa Professor-cum-Head Department of TVCC





- Create and maintain academic, clinical, research and extension programs that are recognized nationally and internationally for their quality and innovation.
- Maintain high quality education standards for our students.
- Honor the patient's quality of life as our first priority in decision making.
- Advancement of animal health and well-being by providing educational experiences, delivering outstanding veterinary care and discovering innovative methods to diagnose, prevent and treat disease.





#### THE INTERNSHIP PROGRAMME

One-year rotatory education program undertaken after completion of course work to provide mentored clinical training in order to advance clinical competence of students. Interns will work in different departments to attain a holistic experience on different aspects of veterinary and animal science. The internship programme includes a well-defined curriculum as per MSVE 2016 and outcome assessment using appropriate metrics of evaluation.





#### **QUALITIES OF A RESPONSIBLE INTERN**

Punctuality, Quest for learning, Integrity and Commitment towards patient care.

An intern shall stick to department rotation schedule. Night duty intern shall stay in interns' room in the clinical block and respond immediately to emergency/ offhours phone calls, coordinate with on-duty post-graduates/ veterinary officers and get causal leave sanctioned in advance from the internship in-charge of the respective department.

#### **Duty dress code**

Maintain clean professional attire. Interns on Large Animal Clinical Duty must wear dangree and those on Small Animal Clinical Duty must wear clean white aprons with name plates. Ensure to be equipped with basic instruments like stethoscope, thermometer, plexor, and doctor torch.

#### **Duty timings**

Working day duty: 9:00 AM to 5:00 PM (Monday to Friday)

Saturdays and Public holiday duty: 9:30 AM to 12:30 PM

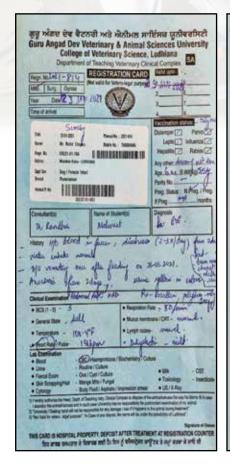
Off-hour duty: 5:00 PM to 9:00 AM (Monday to Friday)

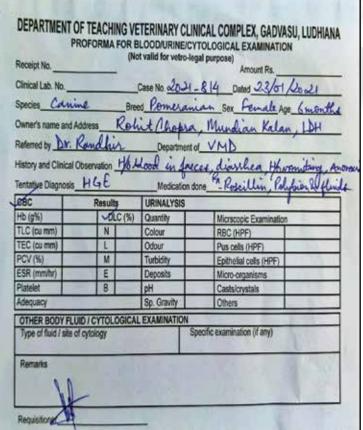
12:30 PM to 9:30AM (Saturdays and Public holiday)

In emergency/ off-hour schedule, interns on-duty in any department can serve as "back-up".

#### **Dealing with cases by an intern:**

- Communicate effectively and professionally with animal owners to extract proper and complete history of the case.
- Fill all columns in OPD cards and record basic body parameters of the case.
- Complete the required diagnostic test form(s) and get those signed by the consultant doctor before submitting for fee deposition.
- Advise owners to submit samples at the single window sample collection counter and collect the reports from the same counter.
- Prescribe medication on the advice of on-duty doctor, including name of intern on prescription slip and get the same cross-checked by a post-graduate before dispensing to client.
- Undertake proper and judicious treatment of patients.
- Make follow-up of respective cases handled during clinical duty and record regularly for checking by concerned doctor.





#### **BE AWARE ABOUT SAMPLE COLLECTION AND SUBMISSION**

**Single Window Sample Collection and Report Delivery:** Owners shall submit all the samples at designated places as mentioned underneath according to sample type and collect the reports after 2-3 hours. They are not allowed to enter laboratories.

Sample type	Area of submission	Analyzing laboratory			
Blood, Serum, Plasma, Urine, Feces, Skin Scrapping, Hair, Body Fluids, Fine needle aspirate cytology	1	Clinical Diagnostic Lab			
Biopsy for histopathology and Sample for Rabies Testing	Hospital	Department of Veterinary Pathology			
Fodder and Feed for Cyanide/ Nitrite/ Nitrate/ Lead/ Cadmium/ Fluoride and Acetylcholinestrase in blood or tissues		Department of Veterinary Pharmacology and Toxicology			
RBPT for Brucellosis, Fecal testing by PCR for JD, CD, CPV and Feed samples for Aflatoxins		Department of Veterinary Microbiology			
Milk for Mastitis	Mastitis Lab, Room No. 325, 2 <sup>nd</sup> floor, Clinical Block	Department of Veterinary Medicine			
Water, Human Brucellosis testing, Microbiological examination of Milk/ Meat, salt and their Products, Pesticide residue analysis of food of animal origin and feed	School of Public Health and Zoonosis	School of Public Health and Zoonosis			
TB (Intradermal testing)	NA	Animal Disease Research Centre			
Feed Nutritional analysis	Department of Animal Nutrition	Department of Animal Nutrition			



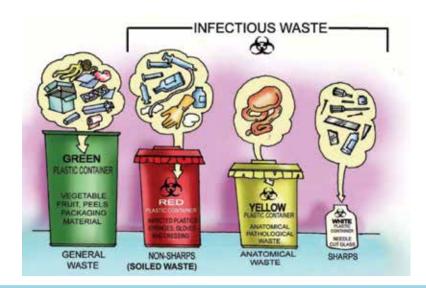


#### **CLINICAL DIAGNOSTIC LABORATORY**

**Equipped with latest diagnostic machines and houses sections like** Clinical Pathology, Parasitology and Microbiology for analysis of routine clinical samples.



#### STRICTLY ADHERE TO BIO-MEDICAL WASTE MANAGEMENT



- All interns must strictly comply with prescribed Bio-Medical Waste Management (BMWM) rules while working in clinics. Biomedical waste comprises animal anatomical waste, treatment apparatus like needles, syringes and other materials used in health care facilities in the process of treatment and research.
- Never leave the used needle, syringe, cotton or swab on working table and always keep in mind the color coding while disposing-off bio-medical waste generated while performing duty.
- According to BMWM Rules, 2016 (notified by Ministry of Environment, Forest and Climate Change, Government of India under Environmental Protection Act, 1986), the hospital ensures effective disposal of the generated bio-medical waste.
- The 'prescribed authority' for enforcement of the provisions of these rules in respect to our
  - university hospital is Punjab Pollution Control Board. University has an agreement with common biomedical waste treatment disposal and facility "Medicare Environmental Management Pvt. Ltd." for collection and disposal of bio-medical waste generated in our hospital.
- evening. the bio-medical Everv waste collection vehicle collects the segregated bio-medical waste stored in a bio-medical waste storage room (near Primary Unit) for further waste treatment and disposal.



# MUST LEARN BASIC PROCEDURES BY AN INTERN DURING INTERNSHIP PROGRAMME

Learning the basic procedures shall inculcate the capabilities in an intern to treat all kinds of cases under field conditions and practice independently.



# MUST LEARN VETERINARY MEDICINE PROCEDURES

- Blood and body fluid collection
- Rectal examination
- Rumen liquor collection
- ❖ Abdominocentesis/ Thoracocentesis
- CSF collection
- Hoof trimming
- Mastitis testing (CMT, BTB, CST)
- Nasogastric intubation in equines
- Blood pressure monitoring
- ◆ ECG

- Drug administration techniques in different species of animals: oral/ parenteral/ rectal
- Deworming procedures and doses for different species of animals or birds
- Vaccination procedures, schedules and vaccine types for different diseases
- Dosage regimens of important drugs
- Skin scrapping and interpretation
- Blood typing and transfusion

#### **Advanced procedures**

- Ultrasonography
- Endoscopy

- Echocardiography
- Hemodialysis



# MUST LEARN VETERINARY SURGERY & RADIOLOGY PROCEDURES

- Site preparation for surgery
- Preparation of surgical pack
- Robert Jones bandaging
- Pre-anesthetic administration and induction
- Maintenance of general anaesthesia
- ❖ Dealing with anesthetic emergencies
- ❖ Local anaesthetic administration
- Nerve blocks: sites and functional application

- Suture material, suture pattern and tying knots
- Tooth rasping
- ❖ X-ray interpretation
- Fracture management: splint and bandaging
- Common surgical procedures like including dehorning, docking, rumenotomy, medial patellar desmotomy and atresia ani

#### **Advanced procedures**

- Ultrasonography
- Orthopedic surgery
- Cataract surgery

- Dental surgery
- Minimally invasive surgical procedures
- Equine surgery









#### **MUST LEARN VETERINARY GYANECOLOGY & OBSTETRICS PROCEDURES**

- Examination for breeding soundness
- Genital palpation/ examination
- Estrus detection
- Artificial insemination
- Pregnancy diagnosis
- Management of vaginal or uterine prolapse
- Correction of uterine torsion
- Management of dystocia

- Andrologial examination of bull
- Handling, preservation and evaluation of semen
- Fetotomy
- Pyometra treatment
- Ovarian Hysterectomy/ castration
- Removal of retained placenta
- Treatment of anestrous and repeat breeding

#### **Advanced procedures**

- Estrous synchronization protocols
- Ultrasound for fetal status

- Cardiac tocometry
- Vaginal hyperplasia surgery









#### **MUST LEARN PROCEDURES AT OTHER DUTY PLACES**

#### **Department of Veterinary Pathology**

- Staining techniques for routine clinical samples
- Hematological evaluation (Complete blood count) and interpretation
- ❖ Interpretation of blood chemistry profile
- Examination and interpretation of body fluids, fecal examination and skin scrapings
- Post-mortem examination





#### **Directorate of Livestock Farms**

- Restraint of farm animals
- Animal identification, dentition and ageing
- Housing layout of livestock
- Management of new born calves
- Deworming and vaccination: schedule and procedures
- Milking management
- Farm biosecurity
- Record keeping

#### **Animal Disease Research Centre**

- Duty at Civil Veterinary Hospital
- Sample collection, handling and dispatch of biological materials for laboratory examination
- Attending an outbreak



#### **Department of Animal Nutrition**

- Computation of ration for different species of livestock
- Fodder management and interpretation of feed quality evaluation
- Manufacturing uromin licks and mineral mixture

#### **Punjab Veterinary Vaccine Institute**

- Production of different vaccines (Black Quarter, Enterotoxemia, Haemorragic Septicemia, Swine fever, Fowl Pox, F1 and R2B vaccine)
- Production of Brucella and Salmonella antigen
- Quality control of vaccines
- Good manufacturing practices (GMP) norms for vaccine production





#### **Department of Veterinary and Animal Husbandry Extension Education**

- Knowledge about university publications
- Details of university outstations (RRTCs and KVKs) and their mandates
- Facilities provided by university to farmers
- Different farmer groups
- Farmer trainings
- Art of interacting with farmers

#### **Department of Teaching Veterinary Clinical complex**

- Hospital Management
- ❖ Bio-medical waste management
- Online registration/ data management system





#### **Remount Veterinary Corps (NCC)**

- Horse management practices including bandaging of horse for exercise and stable bandaging
- Soundness in horse
- Drug administration in horse
- Hoof management in horse
- Lameness in horse (detection and management)

#### **College of Dairy Science and Technology**

- Milk plant operations
- Product manufacturing
- Composition/ adulteration of milk and milk products
- Microbiological evaluation
- Value addition
- Procurement and overall running of milk plant





#### **Canine/Equine Training Centres**

- Routine practices at institute
- Breeding practices
- Training of canines for different purposes
- Hoof trimming in horses

#### **College of Fisheries**

- ❖ Aquaculture practices for different fish species
- Breeding technologies
- Post harvest processing and value addition
- Azolla culture
- Ornamental fish rearing and fish health management





#### **Veterinary Colleges of Other States**

- Routine clinical practices at each college
- Advanced diagnostic and treatment facilities
- Handling of clinical cases of local species like Sheep, Yak, Camel etc.

#### **MONITORING**

To monitor effective implementation of internship programme, a committee will be constituted by the Dean, COVS with Dean, In-charge of Veterinary Clinical Complex, In-charge of Livestock Farm and In-charge Internship as members.

**Leaves:** Maximum casual leaves for 15 days (maximum two per month) with the consent of internship in-charge of the concerned department. Willful absence even for part of a day or during off hour duty (including Sundays/ holidays) will be treated as absent for that day and the candidate will have to undergo training for the additional days in lieu of the period of absence. Internship allowance will not be paid for these additional days.

**Allowance:** All interns will be granted allowance for their duties during internship programme. No internship allowance will be paid for the period of absence or unsatisfactory performance. The intern shall be able to appear in final assessment following satisfactory report from each unit of twelve-month internship program.

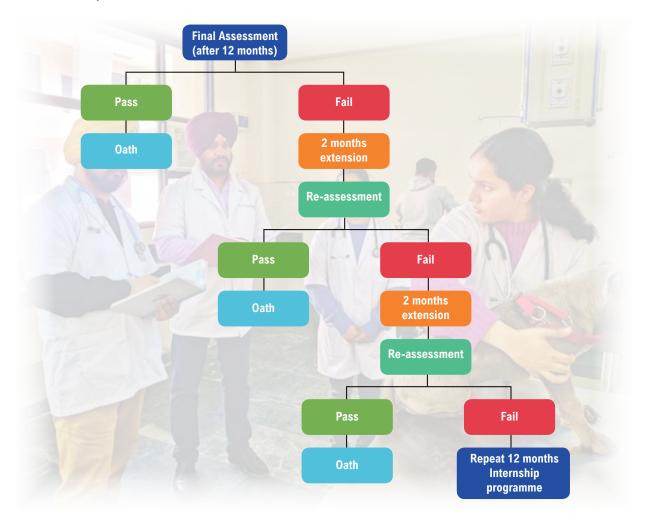
**Record:** An intern will maintain a log book of day to day work which will be verified and certified by the teacher on duty. Interns will prepare a brief project report on the basis of his/ her case study or case analysis, survey reports etc. and the interns will present such report(s) in seminars organized for the same.

**Personal safety:** Interns are always at a risk of acquiring zoonotic diseases like tuberculosis, rabies and brucellosis. So, they must strictly follow all the precautionary measures like wearing sleeves before doing per-rectal examination, wearing gloves while collecting blood samples from suspected animals and prompt vaccination, if by chance you get in contact with an animal suspected for any zoonotic disease like rabies. Department of Teaching Veterinary Clinical Complex (TVCC) will vaccinate all the interns against rabies. In case of any suspected bite case, post bite anti-rabies vaccination will also be done by Department of TVCC.

#### **ASSESSMENT**

An intern shall be able to appear in the final assessment at the end of twelve-month program only after obtaining satisfactory (S) report in each duty unit. In case of unsatisfactory (US) grade from a duty unit, the duty shall be repeated for the whole period in that unit. Consequently, after obtaining 'S' grades from all the units of internship programme, an intern will be able to appear in final assessment.

In the final internship assessment, if an intern fails to score minimum 50% marks, then internship will be extended by two months. After two months, intern will be re-evaluated and then inability to secure 50% marks again will make him/her liable for another reevaluation after two months. Another unsatisfactory report will liable an intern to reregister afresh for entire twelve-month calendar including re-registration with the State Veterinary Council.



## PROBABLE INSTITUTES OUTSIDE PUNJAB AS A PART OF INTERNSHIP DUTY

Rajasthan University of Veterinary and Animal Sciences (RAJUVAS), Bikaner (Rajasthan): Twelve-hour journey by road to reach Bikaner. Daily evening bus service available from Ludhiana. Train service available from Jalandhar to Bikaner with departure at 12:30 PM and arrival at 12:30 AM.



Dr. G. C. Negi College of Veterinary and Animal Sciences (DGCN, COVAS), Palampur (Himachal Pradesh): Nearest airport is 40 KM from main campus at Gaggal (by name Dharamshala). Regular bus service available from Ludhiana/ Chandigarh to Palampur.



**Expenses:** Intern will bear the cost of travel to outside state veterinary college. No financial liability will be borne by either parent or host university. However, interns will be provided a rent free accommodation on sharing basis in the boys'/ girls hostel along with bed and mattress (bed sheet, blanket/quilt not included). Interns need to bear the cost of food and electricity. Approximately Rs. 4000-5000 is an average expense during your stay at each veterinary college. **Advance travel booking:** Interns are advised to book their bus, rail or air journey in advance for outside state veterinary college to avoid last minute hassle due to non-availability of seats.



#### PREVIOUS PLACEMENTS OF COVS, LUDHIANA STUDENTS

Year of passing	Number of students	Government sector	Private sector	Self employed	Higher education	Abroad
2013	53	29	3	5	4	12
2014	61	26	12	3	10	10
2015	74	18	9	10	20	17
2016	78	26	14	6	18	14
2017	81	1	15	13	37	15
2018	88	1	19	1	63	4
2019	68	2	15	-	22	29
Total	503	103	87	38	174	101
		20.4%	17%	7.6%	35%	20%





# Guru Angad Dev Veterinary & Animal Sciences University, Ludhiana Department of Teaching Veterinary Clinical Complex (TVCC)

# Schedule for internship duty of B. V. Sc. & A. H. students (One Year)

March to August a) NCC (1st-15th) b) PVVI (16th-30th) Sept. to Feb. c) TVCC (1st-15th) d) Vety Patho.(16th-30th)	ъ	A	В	ပ	Q	Ш	ш	A	В	၁	Q	В
a) DLF (1st-7th) b) College of DST (1st half) and College of Fisheries (2nd half) (8th-15th) c) Animal Nutrition (16th-22nd) d) VAHEE (23rd-30th)	Э	4	А	В	0	D	Э	ч	А	В	၁	D
a) Vety Colleges of other States (1 <sup>st</sup> -15 <sup>th</sup> ) b) ADRC (16 <sup>th</sup> -30 <sup>th</sup> )	D	ш	Ъ	A	В	၁	D	ш	ш	А	В	O
Vety Surgery (1 month)	၁	D	Е	ш	А	В	ပ	D	ш	ц	A	В
Vety Medicine (1 month)	В	ပ	D	ш	Ь	A	В	ပ	O	ш	ட	А
Vety Gynae (1 month)	Y	В	0	Q	3	Ь	Α	В	O	Q	3	ч
Duty Period Vety Gynae (Month) (1 month)	1st	Znd	3rd	<b>4</b> th	ч;9	6 <sup>th</sup>	<b>7</b> th	8th	gth	10 <sup>th</sup>	11th	12 <sup>th</sup>

# Please note:

- NCC unit of COVS, Ludhiana; PVVI: Punjab Vety. Vaccine Institute, Ludhiana, ADRC: Animal Disease Research Centre, DLF: Directorate Livestock Farm
- Group on duty for two different Vety. colleges will be further subdivided into two groups and each group will attend duty in two different colleges (2 weeks), such that each student will be on duty in other colleges for a total of 1 month (2 weeks in each college) during whole internship period.
  - Transition period (01 day) for joining in Vety. college of other state will be adjusted from duty period of relieving department (VAHEE). Similarly, transition period (01 day) for rejoining parent institute (GADVASU) will be adjusted by the department where the student will report for next duty (ADRC).

#### **IMPORTANT CONTACTS**

Name & Designation	Contacts			
Department of Teaching Veterinary Clinical Complex (TVCC)				
Dr. Swaran Singh Randhawa Professor-cum-Head	9463242612			
Dr. Rajsukhbir Singh Professor, Internship Incharge	7986599095			
Dr. Randhir Singh Assistant Professor, Internship Incharge	8146414161			
Teaching Veterinary Clinical Complex Emergency	0161-2414011			
Other important contacts				
Clinical Diagnostic Laboratory	0161-2414030			
Farmer Information Centre	0161-2414026			
Department of Veterinary Medicine	0161-2414008			
Department of Surgery & Radiology	0161-2414002			
Department of Veterinary Gynecology & Obstetrics	0161-2414003			
Directorate Livestock Farms	0161-2414042			
Dr. Simrinder Singh Sodhi, Security Officer	89683-90252			
Dr. N.D. Singh, Security Officer	97808-52132			





# NATIONAL AGRICULTURE HIGHER EDUCATION PROJECT (NAHEP)

"Veterinary Internship: An Orientation Pack" published under Project: Institutional Development Plan for improved Learning Outcome, Skill and Entrepreneurship at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana

#### **Project Implementation Unit (PIU)**

National Director (NAHEP): Dr. R.C. Agrawal, Deputy Director General (Education)

National Coordinator (IDP): Dr. P. Ramasundaram, National Coordinator

IDP Leader: Dr. Inderjeet Singh, Vice Chancellor, GADVASU

**Principal Investigator / Coordinator:** Dr. Sarvpreet Singh Ghuman, Dean, College of Veterinary Science

Associate Coordinator: Dr. Opinder Singh, Professor, Veterinary Anatomy

**Nodal Officer of IDP** 

**Environment Management Officer:** Dr. Satyavan Rampal, Director Students Welfare-cum-Estate Officer

**Grievance Redress Mechanism Cell Officer:** Dr. Opinder Singh, Professor, Veterinary Anatomy

**Social Safeguard Officer:** Dr. Varinder Uppal, Professor-cum-Head, Veterinary Anatomy

**Project Monitoring and Evaluation Nodal Officer:** Dr. Mrigank Honparkhe, Professor, Veterinary Gyanecology & Obstetrics

**Procurement Officer:** Dr. Nirbhay Kumar Singh, Associate Professor, Veterinary Parasitology

#### **IDP team Members**

College of Veterinary Science: Dr. Nitin Mehta, Assistant Professor

College of Fisheries: Dr. Vaneet Inder Kaur, Scientist

College of Dairy Science & Technology: Dr. Varinder Pal Singh, Assistant Professor

#### **NOTES**

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The Veterinarian's Oath

Being admitted to the profession of veterinary medicine, I solemnly swear to use my scientific knowledge and skills for the benefit of society through the protection of animal health and welfare, the prevention and relief of animal suffering, the conservation of animal resources, the promotion of public health, and the advancement of medical knowledge.

I will practice my profession conscientiously, with dignity, and in keeping with the principles of veterinary medical ethics.

I accept as a lifelong obligation the continual improvement of my professional knowledge and competence.