





## **ICAR ACCREDITATION 2020**

**6.4. SELF STUDY REPORT** 

on

VETERINARY COLLEGE AND RESEARCH INSTITUTE NAMAKKAL



TAMIL NADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY CHENNAI – 600 051

## **6.4 SELF STUDY REPORT**

VETERINARY COLLEGE AND RESEARCH INSTITUTE NAMAKKAL

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## 6.4 SELF STUDY REPORT FOR UNDERGRADUATE PROGRAMME (B.V.Sc. & A.H.)

#### 6.4 Self Study Report for the Programme: B.V.Sc. & A.H.

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

#### 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Right from the beginning the intake capacity is 80 students per batch and is continued till last year and from 2021-22 academic year, number of intake is increased to 100 (85 seats for state and 15 seats for All India quota filled through VCI). Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

It is worth to mention the role of Animal Feed Analytical and Quality Assurance Laboratory, and Poultry Disease Surveillance and Diagnostic Laboratory in helping the poultry industry throughtechnical and technological inputs which made the city Namakkal as Egg City of the state and to stand next to Hyderabad in the country. In addition, the veterinary clinical complex functioning Namakkal town has been rated as one of the referral hospital for almost eight districts around Namakkal since the large animal clinical facilities are well known among the practising veterinarians. Further, it is attracting students from other states and foreign countries for their PG education.

It is a privilege to mention that the students from USA, Malaysia and Bangladesh are regularly undergoing training as part of externship programme which earned good geo status among veterinary colleges in India.

Livestock Farm Complex was established with almost all domestic species of livestock for UG teaching and PG research. UG students are trained in the farm as per the guidelines of VCI and University, which makes our graduate to meet day one competence standard. Herringbone milking parlour was established as part of farm modernization. Poultry complex has all types of modern poultry houses including environmentally controlled houses, feed mill, mineral mixture plant, hatchery unitand other alternate poultry species. Further, germplasm of different livestock and poultry species are given to progressive farmers to propagate and breed better stock. Farmers, school and college students from nearby areas are visiting the campus periodically to keep themselves abreast of latest technologies in livestock farming.

A self contained dairy plant, Pet food unit and feed mill are functioning in this campus for teaching and entrepreneurship development of students. Carcass utilisation plant is a unique facility where the dead birds from poultry farms are being used to produce carcass meal and carcass fat. Semen bank is an actively functioning unit which enables to preserve the semen straws of native animals such as Bargur, Kangayam breeds are being supplied to the farmers on cost basis. These unitsare used for providing hands-on-training to the student community.

#### 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S. No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	18	18	0	As per the VCI, the required staff
2.	Associate Professor	37	27	10	strength is as follows:
3.	Assistant Professor	67	56	11	Professor : 17
	Total	122	101	21	Associate Professor : 16
					Assistant Professor: 41
					Total : 74

#### 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

#### VETERINARY COLLEGE AND RESEARCH INSTITUTE, NAMAKKAL

SI. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Na	ame of the incumbent holding thepost
Dean	's Office	1			1	
1	Dean	1	1	0		Dr.B.Mohan (27.08.2018 - 27.08.2021)  Dr.M.Selvaraju (From 27.08.2021)
2	Administrative Officer	1	0	1		Vacant
3	Accounts Officer	1	1	0		Tmt.M.Selvam
4	Assistant Public Relation Officer	1	1	0		Th.G.Devaraj
5	Superintendent	6	5	1	1	Tmt.K.Selvarani
					2	Tmt.C.Malathi
					3	Tmt.A.Kala

					4	Th.G.Vivekanandan
					5	Tmt.M.Chandrika
					6	Vacant
6	Assistant	5	3	2	1	Tmt.P.Anitha
	11331344414			_	2	Tmt.K.Venkatamathu
					3	Th.M.Babu
					4	Vacant
					5	Vacant
7	Assistant (Sec)	1	1	0		Tmt.C.Gnanam
8	Steno-Typist Grade I	1	1	0		Th.E.Thamotharan
9	Steno-Typist Grade III	1	0	1		Vacant
10	Junior Assistant	2	0	2		Vacant
11	Typist	3	2	1	1	Tmt.R.Nirmala
	31				2	Tmt.K.Jaya
					3	Vacant
12	Telephone Operator	1	1	0		Tmt.D.Gandhimathi
13	Attender	5	4	1	1	Th.P.Panneerselvam
					2	Th.S.Ramachandran
					3	Selvi.P.Mytheli
					4	Th.A.Shameem
					5	Vacant
14	Office Assistant	3	1	2	1	Tmt.N.Rathinam,
					2	Vacant
					3	Vacant
15	Attendant	5	4	1	1	Th.S.Baladas
					2	Tmt.P.Amaravathi
					3	Th.M.Kannan
					4	Th.K.Vijayakumar,
					5	Vacant
16	Provincialized Mazdoor	1	1	0		Th.O.P.Murugesan, Attendant
17	Photographer Gr.III	1	0	1		Vacant
18	Driver	6	5	1	1	Thiru.P.Rajkumar
					2	Thiru.S.Chandran
					3	Thiru.V.Premnath
					4	Th.M.Sivadas
					5	Th.K.Vetri Mohan
					6	Vacant

19	Cleaner	3	3	0	1	Th. K.Chithambaram
					2	Th. R.Rajagopal
					3	Tmt. V.Saradhamani, Attendant
	Total	48	34	14		
ENG	SINEERING SECTION					
1	Assistant Engineer (Civil.)	1	1	0	1	Er.K.Thirumaran
2	Assistant Engineer (Elec.)	2	2	0	1	Er.A.Balasubramaniam (A.E Civil )
					2	Er.R.Gunasekaran, (A.E.Mech)
3	Electrical Foreman	1	1	0		Th.K.Nazirullahkhan
4	Electrician Grade II	1	1	0		Th.P.Saravanan
5	Plumber	2	2	0	1	Th.P.Venkatachalam
					2	Th.M.Periyasamy
6	Attendant	1	1	0	1	Tmt.A.Vasuki
7	Office Assistant	1	1	0		Th.P.Sekar, Attendant
	Total	9	9	0		
HOS	TEL					
1	Assistant Accounts Officer	1	1	0		Tmt.G.Sarojini
2	Assistant (Sec)	1	0	1		Vacant
3	Attendant	4	1	3	1	Th.S.Varutharajan
					2	Vacant
					3	Vacant
					4	Vacant
	Total	6	2	4		
LIB	RARY					
1	Assistant Librarian	1	1	0		Dr.M.Sithi Jagannara
2	Librabry Assistant	1	0	1		Vacant
3	Assistant	1	1	0		Tmt.K.Rajeswari
4	Typist	1	1	0		Th.K.Ganesan
5	Attender	1	0	1		Vacant
6	Attendant	3	1	2	1	Th.S.Saravanavel
					2	Vacant
					3	Vacant
	Total	8	4	4		
PHY	SICAL EDUCATION					
1	Director of Physical	1	1	0		Dr.K.Shanthi
	Education					

2	Assistant Director	1	1	0		Dr.P.Ganesh Kumar
3	Marker	2	2	0	1	Th.R.Ramu
					2	Th.D.Cheralathan, Attendant
	Total	4	4	0		
EDU	CATION CELL					
1	Data Entry Operator	1	1	0		Tmt.S.Vanitha Devi
	Total	1	1	0		
ANI	MAL HUSBANDRYECONOMIC	S				
1	Professor	1	1	0		Dr.D.Ananda Prakash Singh (Working as Prof. & Head at LFC)
2	Associate Professor	1	1	0		Dr.A.Raja, Professor (working as Professor & Head at Edu Cell)
3	Assistant Professor	2	2	0	1	Dr. V.Senthilkumar (Placed as Asst. Prof and Head)
					2	Dr.V.Boopathi (working at LFC)
	Total	4	4	0		
ANI	MAL HUSBANDRY STATISTICS	AND	COM	PUTEI	RAPP	PLICATIONS
1	Professor	1	1	0		Dr.K.Sivakumar (Working as Prof.& Head at Dept. of LPM)
2	Associate Professor	1	1	0		Dr.A.Arivuchelvan, Professor and Head
3	Assistant Professor	3	1	2	1	Dr.R.Chitra
					2	Vacant
					3	Vacant
4	Attendant	1	1	0	1	Th.P.Eswaran
	Total	6	4	2		
VET	ERINARYANATOMY					
1	Professor	1	1	0		Dr. K.Balasundaram
2	Associate Professor	2	1	1	1	Dr. S.Jayachitra, Asst. Prof.
					2	Vacant
3	Assistant Professor	3	2	1	1	Dr.N.Bharathy
					2	Dr.P.Dharani
					3	Vacant
4	Livestock Inspector Gr.II	1	1	0		Tmt.C.Vijayalakshmi, Attendant
5	Attender	1	1	0		Th.C.Ayyamuthu
	Total	8	6	2		

VET	ERINARY BIOCHEMISTRY					
1	Associate Professor	1	1	0		Dr.R.Prakash Krupakaran, Professor
2	Assistant Professor	2	1	1	1	Dr.S.Jayachandran,Professor & Head,
					2	Vacant
3	Attender	2	2	0	1	Th.R.Arangavadivelan
					2	Th.A.Bronson
4	Attendant	1	0	1		Vacant
	Total	6	4	2		
LAB	ANIMAL MEDICINE					
1	Assistant Professor	1	1	0		Dr.M.Sakthipriya
	Total	1	1	0		
VET	ERINARY PREVENTIVE MED	ICINE				
1	Professor	1	1	0		Dr.K.M.Palanivel
2	Associate Professor	1	1	0	1	Dr.R.Rishikesavan, Asst. Prof.
3	Assistant Professor	1	1	0	1	Dr. M.Saravanajayam
4	Typist	1	0	1	1	Vacant
5	Attendant	1	1	0		Tmt.M.Valli
	Total	5	4	1		
VET	ERINARY PUBLIC HEALTH A	ND EPI	IDEM	IOLO	GY	
1	Associate Professor	1	1	0		Dr.G.Selvaraju Professor & Head
2	Assistant Professor	1	1	0		Dr.M.Geetha
	Total	2	2	0		
LIVI	ESTOCK FARMCOMPLEX					
1	Associate professor	1	0	1	1	Vacant
2	Assistant Professor	5	3	2	1	Dr.R.Sakthivadivu
					2	Dr.C.Sankar
					3	Dr.P.Thirunavukkarasu
					4	Vacant
					5	Vacant
3	Assistant	1	1	0	1	Tmt.A.Malathi
4	Attendant	16	15	1	1	Th. M.Palanisamy, Basic Servant
					2	Tmt. R.Dhanam, Basic Servant
					3	Tmt.P.Saroja, Basic Servant
					4	Tmt.K.Selvi, Basic Servant
					5	Th.G.Natarajan
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					7	Tmt. A.Angammal, Basic Servant
					8	Tmt. K.Lakshmi, Basic Servant
					9	Tmt.P.Palaniyammal, Prov. Maz.
					10	Tmt.G.Govindammal, Prov. Maz.
					11	Tmt.C.Santhi, Basic Servant
					12	Tmt.S.Valarmathi, Basic Servant
					13	Th.G.Dhanapal
					14	Tmt.V.Nirmala, Basic Servant
					15	Th.D.Selvaraj
					16	Vacant
5	Provincialized Mazdoor	3	3	0	1	Th. P.Subramanian, Attendant
					2	Th. P.Selvaraj, Attendant
					3	Th.P.Pugalenthi, Attendant
	Total	26	22	4		
ANII	MAL FEED ANALYTICALAND	QUAL	ITYA	SSUR	ANCE	LABORATORY
1	Associate Professor	1	1	0		Dr.A.Natarajan, Prof. & Head
2	Assistant Professor	2	2	0	1	Dr.S.Senthilkumar
					2	Dr.R.Kavitha
3	Assistant	1	1	0		Tmt.C.Kavitha
	Total	4	4	0		
ANII	MAL GENETICS AND BREEDIN	NG				
1	Professor	1	1	0	1	Dr.A.K.Thiruvenkadan
2	Associate Professor	2	1	1	1	Dr.N.Murali Prof. & Head
					2	Vacant
3	Assistant Professor	3	3	0	1	Dr.R.Saravanan
					2	Dr.M.Malarmathi
					3	Dr.M.Jeyakumar
4	Superintendent	1	1	0		Tmt.R.Anbuchelvi
5	Technician	1	0	1		Vacant
6	Special Attender	1	1	0		Th.M.Maruthavel, Attender
7	Attendant	1	1	0		Th.P.Subramaniam
	Total	10	8	2		
ANI	MAL NUTRITION					
1	Professor	1	1	0		Dr.P.Vasanthakumar
2	Associate Professor	3	2	1	1	Dr.P.Vasan, Professor
					2	Dr.C.Kathirvelan
1					3	Vacant

3	Assistant Professor	5	1	4	1	Dr.C.Nithya (Working at LFC)
					2	Vacant
					3	Vacant
					4	Vacant
					5	Vacant
4	Assistant	1	1	0		Tmt.S.Kanchana
5	Typist	1	0	1		Vacant
6	Agri.Assistant	2	2	0	1	Tmt.R.Kalaichelvi, Assistant
					2	Tmt.J.Indira Gandhi, Assistant
7	Attendant	1	0	1		Vacant
8	Senior Lab. Assistant	1	1	0		Th.P.Sengodan (Lab Asst)
9	Time Scale Mazdoor	1	0	1		Vacant
	Total	16	8	8		
VET	ERINARY GYNAECOLOGYA	ND OB	STET	RICS		
1	Professor	1	1	0	1	Dr.M.Palanisamy
2	Associate Professor	2	2	0	1	Dr.K.Ravikuma
					2	Dr.D.Gopikrishnan, (AssistantProf)
3	Assistant Professor	2	1	1	1	Dr.K.Senthilkumar
					2	Vacant
4	Typist	1	0	1		Vacant
5	Attendant	1	1	0		Th.P.K.Arunagiri
	Total	7	5	2		
	ESTOCK PRODUCTS TECH NO RYSCIENCE)	DLOGY	ľ			
1	Professor	1	1	0		Dr.G.Kumaresan
2	Associate Professor	1	1	0		Dr.C.Pandiyan, Professor
3	Assistant Professor	3	3	0	1	Dr.N.Karthikeyan
					2	Dr.A.Poorani
					3	Dr.S.Banupriya
4	Junior Assistant	1	0	1		Vacant
5	Attender	2	2	0	1	Th.K.Selvam
					2	Tmt.R.Pugalarasi
6	Attendant	2	1	1	1	Th.L.Duraisamy
					2	Vacant
	Total	10	8	2		
LIVI	ESTOCK PRODUCTION MAN.	AGEM	ENT			
1	Professor	1	1	0		Dr.V.Ramesh

2	Associate Professor	2	0	2	1	Vacant			
					2	Vacant			
3	Technician	1	1	0		Th.J.Rajeshkumar			
4	Attendant	1	1	0	1	Th.K.Subramaniam			
	Total	5	3	2					
GRA	AMIN KRISHI MAUSAM SEWA								
1	Technical Officer	1	0	1	Vacant - (However Dr.S.Banupriya, Assistant Professor, Dept., of LPT (D.Sc)., is ordered to work as Technicalofficer in GKMS scheme, the cost of personnel shall be reimbursed from GKMS scheme)				
Total 1 0 1									
LIV	ESTOCK PRODUCTS TECHNO	LOGY	(ME	AT SC	IENC	E)			
1	Professor	1	1	0		Dr.S.Suresh Kumar, Asso. Prof.			
2	Associate Professor	2	2	0	1	Dr.V.Chandirasekaran, Asst Prof			
					2	Dr.R.Rajkumar, Asst. prof			
3	Assistant Professor	3	3	0	1	Dr.P.Sivakumar			
					2	Dr.M.Muthulakshmi			
					3	Dr.A.Punnagaiarasi			
4	Assistant	1	1	0		Th.B.Ponnusamy			
5	Attender	1	1	0		Th.S.Ravi			
6	Attendant	1	1	0		Th. P. Varadaraj			
7	Boiler Man - Gr.II	1	0	1		Vacant			
8	Master Flayer	1	1	0		Tmt.R.Savithri, Pro.Mazdoor			
	Total	11	10	1					
POU	LTRY SCIENCE								
1	Professor	1	1	0		Dr.M.Moorthy			
2	Associate Professor	1	1	0		Dr.R.Amutha, Professor			
3	Assistant Professor	3	3	0	1	Dr.D.Kannan, Professor			
					2	Dr.K.Rajendran			
					3	Dr.V.Kannan			
4	Laboratory Technician	1	1	0		Th.L.Sundaram			
5	Attender	1	1	0		Th.K.Pandian			
6	Attendant	4	4	0	1	Tmt. S.Akhilandeswari			
					2	Th.V.Latchathipathi			
					3	Tmt.S.Malarkodi, Basic Servant			

					4	Tmt.T.Dhanalakshmi, Basic Servant		
7	Time Scale Mazdoor	1	1	0		Tmt.D.Jeyagowri, Prov. Unskilled Mazdoor		
	Total	12	12	0				
CEN	NTRE OF ADVANCED FACULTY	TRAI	NING	IN AV	IAN S	CIENCES		
1	Junior Assistant	1	0	1		Vacant		
	Total	1	0	1				
VET	TERINARYANIMAL HUSBAND	RY EX	TENS	ION E	DUC	ATION		
1	Professor	1	1	0		Dr.N.Narmatha		
2	Associate Professor	1	1	0		Dr.V.Uma Asst. prof		
3	Assistant Professor	4	3	1	1	Dr. K.M.Sakthivel Asso. Prof		
					2	Dr.S.Karthikeyan		
					3	Dr.P.Ponnusamy (Working at Vety. Microbiology)		
					4	Vacant		
4	Typist	1	0	1		Vacant		
5	Attendant	1	1	0		Th.R.Sankar		
6	Photo-grapher Gr.III	1	1	0		Th.N.Suresh		
	Total	9	7	2				
VET	TERINARY CLINICALMEDICIT	NE						
1	Professor	1	0	1		Vacant		
2	Associate Professor	1	1	0		Dr.E.Venkatesakumar (placed as Assistant Professor &Head)		
3	Assistant Professor	3	3	0	1	Dr.R.Ravi		
					2	Dr.K.Mohanambal		
					3	Dr.K.Sasikala		
4	Assistant	1	1	0		Tmt. V.Vijaya		
5	Attendant	1	0	1		Vacant		
	Total	7	5	2				
VET	TERINARY MICROBIOLOGY	1		1				
1	Professor	1	1	0		Dr.K.Sukumar		
2	Associate Professor	2	2	0	1	Dr.A.Thangavelu, (Professor and Head)		
					2	Dr.P.Suresh Asst. prof.		
3	Assistant Professor	2	1	1	1	Dr.S.Saravanan, Professor		
					2	Vacant		
4	Technician Gr.II	1	1	0		Th.P.Sundaram, Attender		

5						
J	Attendant	1	0	1		Vacant
	Total	7	5	2		
CEN	NTRALISED RESEARCH LA	BORATO	RY			
1	Assistant Professor	1	1	0		Dr.M.Arthanarieswaran
	Total	1	1	0		
VET	TERINARY PARASITOLOGY	r				
1	Associate Professor	3	3	0	1	Dr.G.Ponnudurai Prof. & Head
					2	Dr.K.Arunachalam, Professor
					3	Dr.K.Thangavel (Asst. prof ) work at Dept. of Microbiology
2	Assistant Professor	4	3	1	1	Dr.N.Rani, (Asso. Prof)
					2	Dr. P.Anbarasi
					3	Dr.K.Dhandapani
					4	Vacant
3	Junior Assistant	1	0	1		Vacant
4	Technician Gr.II	2	1	1	1	Th.V.Thangavelu, Attender
					2	Vacant
5	Attendant	1	0	1	1	Vacant
	Total	11	7	4		
VET	TERINARY PATHOLOGY					
1	Professor	1	1	0		Dr.G.A.Balasubramaniam
2	Associate Professor	2	1	1	1	Dr.P.Srinivasan, Professor
					2	Vacant
3	Assistant Professor	3	3	0	1	Dr.P.Balachandran, Prof
					_	,
					2	Dr.R.Madheswaran
						,
4	Assistant	1	1	0	2	Dr.R.Madheswaran
4 5	Assistant Attender		1 1	0 0	2	Dr.R.Madheswaran Dr.M.Sasikala
		1		-	2	Dr.R.Madheswaran Dr.M.Sasikala Tmt.S.Vadivukkarasi
5	Attender	1	1	0	2	Dr.R.Madheswaran Dr.M.Sasikala Tmt.S.Vadivukkarasi Th.S.Chandrasekaran
5	Attender Attendant	1 1 1	1	0	2	Dr.R.Madheswaran Dr.M.Sasikala Tmt.S.Vadivukkarasi Th.S.Chandrasekaran Th.M.Kathirselvan
5 6 7	Attender Attendant Animal Attendant	1 1 1 1 1 10	1 1 1 9	0 0 0 1	3	Dr.R.Madheswaran Dr.M.Sasikala Tmt.S.Vadivukkarasi Th.S.Chandrasekaran Th.M.Kathirselvan
5 6 7	Attender Attendant Animal Attendant Total	1 1 1 1 1 10	1 1 1 9	0 0 0 1	3	Dr.R.Madheswaran Dr.M.Sasikala Tmt.S.Vadivukkarasi Th.S.Chandrasekaran Th.M.Kathirselvan
5 6 7 <b>VET</b>	Attender Attendant Animal Attendant Total TERINARY PHARMACOLOG	1 1 1 1 10 GYAND TO	1 1 1 9 OXIC	0 0 0 1 OLOG	3	Dr.R.Madheswaran Dr.M.Sasikala Tmt.S.Vadivukkarasi Th.S.Chandrasekaran Th.M.Kathirselvan Th.V.Arumugam, Attendant
5 6 7 <b>VET</b>	Attender Attendant Animal Attendant Total TERINARY PHARMACOLOG Professor	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 9 OXIC	0 0 0 1 OLOG	2 3	Dr.R.Madheswaran Dr.M.Sasikala Tmt.S.Vadivukkarasi Th.S.Chandrasekaran Th.M.Kathirselvan Th.V.Arumugam, Attendant  Dr.A.Jagadeeswaran
5 6 7 <b>VET</b>	Attender Attendant Animal Attendant Total TERINARY PHARMACOLOG Professor	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 9 OXIC	0 0 0 1 OLOG	2 3	Dr.R.Madheswaran Dr.M.Sasikala Tmt.S.Vadivukkarasi Th.S.Chandrasekaran Th.M.Kathirselvan Th.V.Arumugam, Attendant  Dr.A.Jagadeeswaran Dr.M.J.Raja (Asst. prof )

					3	Dr.P.Sankar
4	Junior Assistant	1	0	1		Vacant
5	Livestock Ins.Gr.II	1	0	1		Vacant
6	Attendant	1	1	0		Th.A.Subramaniam
	Total	9	6	3		
VET	TERINARY PHYSIOLOGY					
1	Professor	1	1	0		Dr.P.Selvaraj
2	Associate Professor	2	1	1	1	Vacant
					2	Dr.K.Ramesh
3	Assistant Professor	3	3	0	1	Dr.T.Sathya Bama
					2	Dr.M.Prabhu
					3	Dr.K.Devipriya
4	Attender	1	1	0		Tmt. S.Rajeswari
5	Attendant	1	1	0		Th.M.Kumarasamy
	Total	8	7	1		
VET	ERINARY SURGERY ANDRAD	IOLOG	GY			
1	Professor	1	1	0		Dr.S.Dharmaceelan
2	Associate Professor	2	1	1	1	Dr.S.Kathirvel, Professor
					2	Vacant
3	Assistant Professor	3	3	0	1	Dr.K.Jayakumar
					2	Dr.K.Ramya (Working atEducation cell)
					3	Dr.K.Vijayakumar
4	Typist	1	0	1		Vacant
5	Livestock Inspector Gr.II	1	1	0		Th.M.Sampath, Attender
6	Attendant	1	1	0		Th.G.Manoharan
	Total	9	7	2		
	G. Total	282	213	69		

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

- ❖ Total lecture halls: 8
- Seating capacity of 100 in each lecture hall.
- ❖ 2 lecture halls are converted to smart class rooms under ICAR-NAHEP
- ❖ All lecture halls have audiovisual aids like computer, LCD projectors, Wi-fi facility and PA systems

- ❖ In addition one smart class room with a seating capacity of 50 is available in the Veterinary clinical complex and one smart class room with a seating capacity of 50 is available in the VOG department of Clinical block.
- Two examination halls are available to conduct the examinations.
- ❖ As per MSVE 2016 regulations, seventeen departments are engaged in conducting undergraduate courses with fully functional laboratories to meet out the requirements prescribed in the regulations.
- ❖ Theory classes are conducted in one batch and practical classes are conducted in two batches for undergraduate courses.

S. No.	Name of theDepartment	Number of UG Lab with Dimension in square feet	Major equipment
1.	Animal Genetics and Breeding	1200	<ul> <li>Kern Electronic Analytical</li> <li>Balance</li> <li>Gel rocker with electronic timer</li> <li>Real Time PCR</li> </ul>
2.	Animal Nutrition	1800	<ul><li> Hot air oven</li><li> Muffle furnace</li><li> Soxhlet apparatus</li><li> Flame photometer</li></ul>
3.	Livestock Production Management	1200	• Electrical muffle furnace (1100°c)
4.	VeterinaryPreventiveMedicine	1200	<ul> <li>Nikon Binocular microscope</li> <li>(E 400)</li> <li>Analytical balance (KERN)</li> <li>ELISA reader (BIO-RAD)</li> <li>PCR system- Gel documentation system</li> <li>VILBER LOURMAT</li> </ul>
5.	Veterinary and AnimalHusbandry Extension Education	800	· Video editing station
6.	VeterinaryAnatomy	Lab -1220 Lab- 21800	<ul> <li>Histobath</li> <li>Histotap (Leica)</li> <li>Leica DM 100 trinocular microscope with DFC 290 Digital Camera and LAS software</li> <li>Leica microtome with accessories</li> </ul>
7.	Veterinary Biochemistry	1200	<ul><li> Spectrophotometer</li><li> Digital analytical balance</li></ul>

8.	Veterinary Microbiology	Lab- 1200	· Ultracentrifuge
0.	vetermary interodiology	Lab 2 – 600	· RT-PCR
		Poultry disease	· Gradient PCR
		surveillancelab-	· Nano-drop
		1200	· Gel-doc
			· Deep Freezer
9.	Votorinom, Dorogitalogy		· Ultrasonic Homogeniser
9.	Veterinary Parasitology		Labsonic U
			· All Quartz Double Distillation
		1269	Apparatus
		1209	· Leitz Laborluxs
			Binocular Research
			with Photomicrography
			microscope
			· Laminar Air Flow
			(Klenzaids)
10.	VeterinaryPathology		· Microtome 2035
			· Histotap plus
		1050	· Histoblock
			Nikon trinocular Microscope E
			200
			· Auto analyser with accessories
11.	Veterinary Pharmacology and		· UV Visible Double Beam
	Toxicology	1200	Spectrophotometer – PC based
			· Rotary Vacuum Evaporator
			· Tissue homogenizer
12	Livestock Products Technology (Meat		· Sausage Stuffer
	Science)		· Vacuum Tumbler Model F 25x
			· Tissue Homogenizer-1
		1200	· Bacteriological Incubator
			· Modular freezing unit
			· Deep freezers
			· Electronic Weighing Balance-
			500kg
13	Livestock Products Technology (Dairy		· Milk processing equipment
	Science)	1200	· with a capacity of 300 LPH
14	Livestock FarmComplex	1000	· Tractor with Trailor
	r		· Power tiller
			· Power weeder
			· Thresher cum winnower
			· Herringbone Milking Parlour
		l	

15	Veterinary PublicHealth and Epidemiology	1000	<ul><li> High end microscope</li><li> Laminar air flow station</li><li> Spectrophotometer</li></ul>
16	VeterinaryPhysiology	1200	<ul> <li>Spectrophotometer</li> <li>Gas chromatograph</li> <li>Gamma counter</li> <li>Stereo microscopes</li> <li>Research microscopes</li> </ul>
17	Poultry Science	1200	<ul> <li>Molecular biology lab instruments like PCR and other items</li> <li>Poultry feed analysis instruments</li> </ul>
18	Animal Husbandry Statistics and Computer Applications	800	Computer centre with 40     desktop computers and colour     printer are used to teach UG     and PG students. Analysis     of data are carried out by the     faculty and research students
19	Animal HusbandryEconomics	600	
20	Veterinary Gynaecology andObstetrics	900 + 600	<ul> <li>Semen Bank for native breeds preservation.</li> <li>Liquid nitrogen production unit</li> <li>Ultrasound scanners</li> </ul>
21	Veterinary Surgery and Radiology	600	<ul> <li>Major instruments are kept at clinical complex</li> <li>C-Arm</li> <li>Digital X-Ray unit</li> <li>Large animal anaesthesia apparatus</li> <li>Other Operation theatre accessories for small and large animals surgery</li> </ul>
22	Veterinary Clinical Medicine	500	<ul> <li>Major equipment is kept in clinical complex</li> <li>Ultrasound machines</li> <li>Dialysis unit</li> <li>Endoscopy unit etc</li> </ul>

The above facilities are sufficient to conduct the practical classes for 50 students in each batch.

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on -practice. It is important that much ofthe learning material

in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in UG curriculum.
- ❖ Students are trained in various animal husbandry practices right from the bottom level during livestock farm practices in Livestock Farm Complex.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

UG and PG Students getting hands-on clinical training in Gynaecology ward to relieve uterine torsion



Digital X ray unit - Repository of radiography images for easy retrieval



C-Arm to teach moving objects internally and also to take images digitally



#### Small animals CT scan unit for UG teaching and PG research



Large animal Out Patient ward where students are getting clinical skills on diagnosis and treatment



#### Students working at pet food processing unit



Other Unique facilities available for undergraduate skill training

Breeding Bull unit – Hands-on-training on semen collection and preservation techniques.

Used for andrological research of post graduate students.



#### Feed testing laboratory supports to farmers and students in their research



**Livestock Farm Complex** 



### Poultry farm complex



Feed manufacturing unit- also as experiential learning unit



#### Pet food unit



Pet food unit with modern machinery



Digital library – books are issued electronically and monitored



Poultry Disease Diagnostic and Surveillance Laboratory for PG students research



#### **Smart classroom for undergraduate students**





#### 6.4.6 Supervision of students in PG/PhD programmes - NA

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A. Feed back from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised

of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8 Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years								At	trition (	%)		
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
80	82	82	83	82	82	102	22	1	1	-	-	-	0.98

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- 6. Video format of the procedures and recorded hands-on training modules developed over a period of time

The degree curricula specified in the MSVE 2008 and MVSE 2016 and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. - Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

#### 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

.Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# 6.4 SELF STUDY REPORT FOR POSTGRADUATE PROGRAMME (M.V.Sc.)

# M.V.Sc. in Animal Genetics and Breeding

## 6.4 Self Study Report for the Programme: M.V.Sc. (Animal Genetics and Breeding)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented as per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

#### 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Animal Genetics and Breeding was established during the year 1987 for offering Undergraduate courses. The Postgraduate programme was stared in the Department during the year 1993. To its credit, the Department has well equipped Cytogenetics and Molecular Genetics Laboratory. Apart from Undergraduate and Postgraduate teaching, the Department involves in the survey, evaluation and Characterization of native breeds of livestock. The Department has completed the Survey, Evaluation and Phenotypic Characterization of native breeds of livestock viz., Kangayam cattle, Toda buffalo, Kanni Adu & Kodi Adu goats and Vembur & Coimbatore sheep. Monographs on Kangayam Cattle, Coimbatore Sheep and Kanni Adu & Kodi Adu Goats were published. Reported the performance of Jersey cattle at Exotic Cattle Breeding Farm, Eachenkottai and Murrah buffalo at Central Cattle Breeding Farm, Alamadhi, Chennai. Studied the genotoxic effect of industrial pollution on chromosomes of cattle and goats in the industrial areas. Postgraduate laboratory is equipped with Real Time PCR, Thermal Cycler, Gel Documentation System, Refrigerated Centrifuge, Ultra Low Temperature Freezer, Gel Rocker, Tube Agitator, Gel Dryer, SCC Reader, Mini Spin, Laminar Flow Clean Air Work Station and Leica DM2500 Trinocular Photo Microscope to carryout research in the field of Cytogenetics and Molecular Genetics.

## **Objectives**

- \* To offer Animal Genetics and Breeding courses to undergraduate and postgraduate students
- ❖ To formulate new research projects / schemes with financial assistance from University / external funding agencies.
- Survey, evaluation and characterisation of native breeds of livestock.

Molecular characterisation of trait specific genes pertaining to production, reproduction and disease resistance

## **Facilities Available in the Department**

## Cytogenetic laboratory

- ❖ Monocular Student Microscope [M/s. Gerhardt]
- ❖ Leica DM2500 Trinocular Research Microscope [M/s.Leica]
- ❖ Vertical Lamiar Air Flow [M/s. Klenzaids]

## **Molecular Genetics Laboratory**

- ❖ Sequi-Gen GT System & Power Pack [M/s. BioRad]
- ❖ Gel Documentation system [M/s. BioRad]
- **❖** ThermalCylcer −[M/s. BioRad]
- Refrigerated Centrifuge [M/s. Eppendorf]
- ❖ Deep Freezer (-80 C) [M/s. Panasonic]
- Real Time PCR [M/s. Illumina]

#### **Salient Achievements**

#### I. Education

## Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	16	-	16
Ph.D	7	2	9
PDF	1		1

#### \* II. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	1	2	0	0	1	1	2	1	3
Ongoing	0	0	0	0	0	0	0	1	0
Total	1	2	0	0	1	1	2	2	3

#### Achievement of the Department during 2019-20

- ❖ A comprehensive study on the genetic diversity, population structure and phylogeography of South Indian cattle breeds has been carried out along with the two exotic breeds (HF and Jersey) and two crossbreds.
- ❖ Estimated population of Tiruchy Black sheep (19,509 numbers) exhibits sustainable decline in the population and warrants conservation

- ❖ About 200 sheep samples screened for the presence of 'FecB Gene' in farmers sheep flocks for better mating plan.
- ❖ Analysed of Single-Stranded Conformational Polymorphism at 3'UTR of SLC11A1 Gene in Jersey Crossbred Cattle

## 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	1	1	staff strength is as follows:
3.	Assistant Professor	3	3	0	Professor :-
	Total	6	5	1	Associate Professor : - Assistant Professor : -
					Total :-

## 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

#### DEPARTMENT OF ANIMAL GENETICS AND BREEDING

Sl. No.	Name of the Post	Sanctioned strength	Staff in Position	No. of Vacancy		Name of the incumbent hold- ing the post
1	Professor	1	1	0	1	Dr.A.K.Thiruvenkadan
2	Associate Professor	2	1	1	1	Dr.N.Murali Prof. & Head
					2	Vacant
3	Assistant Professor	3	3	0	1	Dr.R.Saravanan
					2	Dr.M.Malarmathi
					3	Dr.M.Jeyakumar
4	Superintendent	1	1	0		Tmt.R.Anbuchelvi
5	Technician	1	0	1		Vacant
6	Special Attender	1	1	0		Th.M.Maruthavel, Attender

7	Attendant	1	1	0	Th.P.Subramaniam
To- tal	Total	10	8	2	

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Animal Genetics and Breeding			* Kern Electronic Analytical
	and Breeding	1200	1200	❖ Balance
				❖ Gel rocker with electronic timer
				❖ Real Time PCR
				❖ Refrigerated Centrifuge
				❖ Gel Doc
				<b>❖</b> Deep freezers (-20, -40 and -80°C)

## 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

## 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor

subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl. No.	Name of the Discipline	No. of recognized teachers	available
		PG Teacher	PG Guide
1	AGB	2	1

## 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

## Action taken by the college

## 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

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To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

## 6.4.8 Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years					At	trition (	%)					
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022				2021- 2022			
1	1	-	1	-	-	-	-	-	-	100	-	-	-

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- **2.** Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

## 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for the following course: PG – M.V.Sc (Animal Genetics and Breeding)

Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# M.V.Sc. in Animal Husbandry Economics

## 6.4 Self Study Report for the Programme: M.V.Sc. (Animal Husbandry Economics)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented as per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

#### 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

This department has been offering both Under Graduate and Post Graduate courses on animal husbandry economics. Under Graduate students of Veterinary Science are taught on concepts of economics and marketing of livestock and livestock products; pricing; farm business and financial management; project preparation and analysis. Various lecture notes, practical manual and question bank were prepared for under graduate courses every year. In Post Graduate courses have been offered on economic, concepts of micro and macro economics, farm production and business, livestock marketing, econometrics, policy framing, livestock project analysis and linear programming for finding the optimum profit and livestock credit. This department has handled research projects in all major fields of livestock and poultry production, marketing, disease losses, constraints identification, credit and rural development. Policy research outputs are mainly helpful for the policy makers, academicians and research scholars on various aspects of livestock, poultry and rural development. Economic losses were particularly estimated for bovine reproductive disorders and Foot and Mouth Disease. Similarly pioneering research on marketing of livestock and its produce were also carried out. A two days workshop on "Preparation of Model Bankable Projects for Livestock and Poultry Farms" was organized every year for the benefit of technical staff from our TANUVAS peripheral centres and One day workshop on "Cost and Benefit Calculation" was organized for various production subjects staffs of Veterinary College and Research Institute, Namakkal.

## **Objectives**

❖ To assess and monitor the development trends in livestock sector from producer to consumer (Supply chain of animal products)

- ❖ To conduct need based economic research on dairying, poultry farming, sheep and goat rearing and cost benefit analysis of disease prevention, control and eradication of diseases
- ❖ To evaluate likely social, animal and public health as well as environmental impacts and risk of these trends.

#### Salient Achievements

#### I. Education

#### Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	3	-	3
Ph.D	1	-	1

#### II. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	02	-	-	-	-
Ongoing	-	-	-	-	-	-	-	01	-
Total	-	-	-	-	02	-	-	01	-

#### Achievement of the Department during 2019-20

#### **Teaching**

- ❖ E learning course content developer for VAE 321 Livestock Economics, Marketing and Business Management (2+1)
- Under Graduate students of Veterinary Science are taught on concepts of economics and marketing of livestock and livestock products; pricing; farm business and financial management; project preparation and analysis.
- ❖ In Post Graduate courses have been offered on economic, concepts of micro and macro economics, farm production and business, livestock marketing, econometrics, policy framing, livestock project analysis and linear programming for finding the optimum profit and livestock credit.

## Research

- ❖ Economic losses were particularly estimated for bovine reproductive disorders and Foot and Mouth Disease. Similarly pioneering research on marketing of livestock and its produce were also carried out.
- This department has handled research projects in all major fields of livestock and poultry production, marketing, disease losses, constraints identification, credit and rural development.
- ❖ Policy research outputs are mainly helpful for the policy makers, academicians and research scholars on various aspects of livestock, poultry and rural development.

#### **Extension**

❖ The department offers consultancy services to the livestock farmers for preparation of Livestock and poultry farm project reports

## 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required staff
2.	Associate Professor	1	1	0	strength is as follows:
3.	Assistant Professor	2	2	0	Professor : -
	Total	4	4		Associate Professor : -
					Assistant Professor :-
					Total :-

#### 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

#### DEPARTMENT OF ANIMAL HUSBANDRY ECONOMICS

Sl. No.	Name of the Post	Sanctioned strength	Staff in Position	No. of Vacancy		Name of the incumbent holding the post
1	Professor	1	1	0		Dr.D.Ananda Prakash Singh (Working as Prof. & Head at LFC)
2	Associate Professor	1	1	0		Dr.A.Raja, Professor (working as Professor & Head at Edu Cell)
3	Assistant Professor	2	2	0	1	Dr. V.Senthilkumar (Placed asAsst. Prof and Head)
					2	Dr.V.Boopathi (working at LFC)
l	Total	4	4	-		

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Animal Husbandry	600	-	-
1	Economics			

## 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

## 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book

which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available						
		PG Teacher	PG Guide					
1	AHE	1	1					

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feed back received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

## Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

## 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

## 6.4.8 Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	%)			
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
2					50	-	-	-	-	-	-		

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

## Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

#### 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for the following course: PG – M.V.Sc (Animal Husbandry Economics)

Dr.M.Selvaraju, Ph.D.,

Dean

Veterinary College and Research
Institute, Namakkal 637 002.

## M.V.Sc. in Animal Nutrition

#### 6.4 Self Study Report for the Programme: M.V.Sc. (Animal Nutrition)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

## 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department was started in the year 1985, to offer undergraduate courses in Animal Nutrition. Post graduate courses were offered from the year 1994. In the year 2007, a separate feed manufacturing unit funded by ICAR was started under experiential learning programme for providing hands on training on various livestock feed preparation to the under graduate students and to cater the needs of livestock and poultry feed of the college, university centers and state government farms. Post graduate Diploma in Feed Manufacturing Technology course was offered from the year 2012. The Department also conducts skill development courses on "Feed Mill Plant Operation and Management" and "Concentrate Feed Preparation Techniques" for the farmers.

## **Objectives**

- ❖ Imparting education to undergraduate and postgraduate students and under taking research and extension.
- ❖ To improve nutrient utilization of alternative energy and protein sources.
- Evaluation of feed additives

#### **Salient Achievements**

#### I. Education

## Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	45	01	46
Ph.D	08	04	12
PGDFMT	18	1	19

#### II. Research

## **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	4	-	-	-	-	-	-	3	-
Ongoing	1	-	-	-	-	2	-	-	-
Total	5	-	-	-	-	2	-	3	-

## • Seminar/Symposium/Training Programmes Organised

Title	Funding	Peri	iod	Details	
Title	Agency	From	То		
Advances in climate resilient feeding strategies to augment the socio- economic status of Sheep / Goat farmers of Tamil Nadu	TNSCST	6.8.2019	8.8.2019	Workshop cum training	

## Achievement of the Department during 2019-20

- Three day Workshop cum training on "Advances in climate resilient feeding strategies to augment the socio- economic status of Sheep/Goat farmers of Tamil Nadu" sponsored by TNSCST was conducted from 06.08.2019 to 08.08.2019.
- Aproject entitled, "Natal and neonatal dietary interventions to produce nutrient fortified-antibiotic residue free chicken meat" was sanctioned by TNSCST (Rs.4.30 lakhs)
- ❖ A project entitled, "Comparative evaluation of mulberry silkworm (*Bambyx mori*) and Non-mulberry silkworm- Eri (*Samia cynthia ricini*) pupae meals as an alternate protein source in the diet of broiler chicken" was sanctioned by Director Sericulture, salem (Rs.6.40 lakhs)
- The University has granted permission to establish "feed/fodder value addition unit" at a cost of lakhs.
- ❖ A guest lecture on, "Dairy cattle nutrition and feeding management Industry and field perspectives" was delivered by Dr.Gnanasekar, Managing Director, Truvet Animal Nutrition Limited, Bengaluru, to II year B.V.Sc., students on 29.07.2019

## 6.1.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	3	2	1	staff strength is as follows:
3.	Assistant Professor	5	1	4	Professor :-
	Total	9	4	5	Associate Professor : - Assistant Professor : -
					Total :-

## 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post
ANIMA	AL NUTRITION					
1	Professor	1	1	0		Dr.P.Vasanthakumar
2	Associate Professor	3	2	1	1	Dr.P.Vasan, Professor
					2	Dr.C.Kathirvelan
					3	Vacant
3	Assistant Professor	5	1	4	1	Dr.C.Nithya (Working at LFC)
					2	Vacant
					3	Vacant
					4	Vacant
					5	Vacant
4	Assistant	1	1	0		Tmt.S.Kanchana
5	Typist	1	0	1		Vacant
6	Agri.Assistant	2	2	0	1	Tmt.R.Kalaichelvi, Assistant

					2	Tmt.J.Indira Gandhi, Assistant
7	Attendant	1	0	1		Vacant
8	Senior Lab. Assistant	1	1	0		Th.P.Sengodan (Lab Asst)
9	Time Scale Mazdoor	1	0	1		Vacant
1	Total	16	8	8		

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension insquare feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Animal Nutrition	1800	1200	<ul><li> Hot air oven</li><li> Muffle furnace</li><li> Soxhlet apparatus</li><li> Flame photometer</li></ul>

## 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- ❖ Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory

committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available				
		PG Teacher	PG Guide			
1	ANN	2	3			

## 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

## 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years						At	trition (	%)				
2015- 2016					2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022		
2	1	2	2	2	1	3	50	-	-	50	50	-	-

## 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- **2.** Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

## 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for the following course: PG – M.V.Sc (Animal Nutrition)

Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

## M.V.Sc. in Veterinary Gynaecology and Obstetrics

#### 6.4 Self Study Report for the Programme: M.V.Sc. (Veterinary Gynaecology and Obstetrics)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

#### 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Gynaecology and Obstetrics was established as separate department on the year 1991 under Dr. J. Rajasekaran as first Head of the Department. Three Undergraduate courses are offered (Veterinary Gynaecology, Veterinary Obstetrics and Veterinary Andrology and Reproductive techniques). Since inception so far ten (both University and Externally funded) projects have been completed and there are six ongoing projects. Twelve M. V.Sc., and 10 Ph.D., theses were submitted and two students are doing M. V.Sc., degree.

#### **Objectives**

- ❖ To impart undergraduate and postgraduate education to the students of Veterinary College and Research Institute. Namakkal
- To provide artificial insemination service to the bovines at hospital Campus.
- To provide infertility treatments to all the farm and pet animals.
- To provide obstetrical emergency treatments to all the farm and pet animals.
- ❖ To offer farm advisory services for the benefits of the farming community by conducting and attending mass contact programmes.
- ❖ To impart training to the field veterinarians about the recent advances in the field of Animal Reproduction, Gynaecology and Obstetrics.
- ❖ To conduct basic and applied research in the Veterinary Obstetrics and Gynaecology.

## **Facilities Available in the Department**

Sl. No.	Name of the instrument/facility
1	Phase contrast research microscope
2	Sonoray DS50 Ultrasound Scanner
3	Vertical deep freezer -20°C
4	Shadow less lamp -LED
5	5 KVA Microteck online UPS
6	Colour Doppler Ultrasonography with accessories
7	Hydraulic operation table
8	Collapsible Chute
9	LCD Interactive projector
10	Laminar Air Flow
11	Education cam with LED
12	Computer Assisted Semen Analyzer (CASA)
13	Zoom Stereomicroscope - Nikon Trinocular
14	Distillation unit
15	Gel Documentation
16	Cryogenic storage container
17	Servo controlled stabilizer for LN plant
18	Liquid Nitrogen Plant
19	Programmable semen Freezer
20	Cold Handling Cabinet
21	Photoelectric calorimeter
22	Automatic straw filling and sealing machine
23	Water bath with stirrer
24	Semen storage container
25	Semen storage container
26	Electronic Weighing balance
27	Numeric HPL 10.0 KVA online UPS 240 VDC (MAITRI)
28	Equitron fully automated autoclave (75 lit) (MAITRI)
29	Digital incubator (150 lit) (MAITRI)
30	Camera with HDMI port and software for NIKON microscope (MAITRI)
31	Embryo Freezer
32	Ethylene Oxide Sterilizer

#### **Salient Achievements**

#### I. Education

## Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	12	4	16
Ph.D	10	-	10

#### II. Research

## **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	2	-	3	-	2	-	-	-	3
Ongoing	-	-	-	-	1	-	-	3	4
Total	2	-	3	-	3	-	-	3	7

## Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Eunding Agency	Pe	eriod	Type of event
Title	Funding Agency	From	То	Type of event
XXXV Annual Convention of				International
the Indian Society for Study				Symposium
of Animal Reproduction (ISSAR)				and Annual
and International Symposium		18.12.19	20.12.19	convention
at Department of Veterinary				of the Indian
Gynaecology and Obstetrics,				Society for
Veterinary College and Research				Study of Animal
Institute, Namakkal – 637 002				Reproduction
				(ISSAR)

## Achievement of the Department during 2019-20

- ❖ Frozen semen doses of 2,61,034 have been produced from buffalo and cattle bulls and 21,
- ❖ 691doses were produced from bucks at Frozen Semen Bankfrom April 2019 to January 2020 and supplied to field for Artificial Insemination
- ❖ Production of frozen semen straws from Salem Black bucks were started from April 2019 and
- ❖ 3178 doses of frozen semen straws were produced till January 2020.
- ❖ Production of Super Napier Grass for an area of 25 cents has been done.
- Small Animal Reproductive Surgery Theatre have been established from April 2019
- ❖ NMBP ET TANUVAS Scheme on "Establishment of Embryo Production Centre for
- Conservation of Indigenous Breeds of Tamil Nadu" is being carried out at a budget outlay of 251.0 lakhs

- ❖ A scheme on "EFFECT OF INDIGENOUS MEDICINES IN THE TREATMENT OF ANESTRUS AND RETAINED FETAL MEMEBRANES IN BOVINES" funded by National Innovation Foundation − India, Autonomous Body of Department of Science and Technology, Govt. of India is being obtained and carried out at a budget outlay of Rs. 11 Lakhs
- ❖ Principal Investigator and Nodal Officer for "Advanced breeding technologies including assisted reproductive technique multiple ovulation and embryo transfer".

## 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	2	0	staff strength is as follows:
3.	Assistant Professor	2	1	1	Professor : - Associate Professor : -
	Total	5	4	1	Assistant Professor : -  Total : -

## 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post
VETE	RINARY GYNAECOLOGY ANI	OBS7	ΓETRI	CS		
1	Professor	1	1	0	1	Dr.M.Palanisamy
2	Associate Professor	2	2	0	1	Dr.K.Ravikuma
					2	Dr.D.Gopikrishnan, (AssistantProf)
3	Assistant Professor	2	1	1	1	Dr.K.Senthilkumar
					2	Vacant
4	Typist	1	0	1		Vacant
5	Attendant	1	1	0		Th.P.K.Arunagiri
1	Total	7	5	2		

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Gynaecology and Obstetrics	900 + 600	1000	<ul><li>Semen Bank for native breeds</li><li>preservation.</li></ul>
				<ul><li>Liquid nitrogen production unit</li><li>Ultrasound scanners</li></ul>

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

## 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor/support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of

the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher	PG Guide				
1	VOG	4	2				

## 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

## Action taken by the college

## 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

## 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

Actual student admitted in last five years						Attrition (%)							
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
1	-	-	2	2	3	3	-	-	-	-	100	-	-

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Veterinary Gynaecology and Obstetrics)

Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# M.V.Sc. in Livestock Production Management

# 6.4 Self Study Report for the Programme: M.V.Sc. (Livestock Production Management)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented as per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

## 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

This Department was started during the year 1985, with the objective of teaching the undergraduate students of B.V.Sc., the methods and techniques of livestock handling, feeding, housing, breeding and disease management. From 1994 onwards this Department stated M.V.Sc programme. In addition, this Department has the mandate of rearing farm animals for the purpose of teaching, research and extension activities.

#### **Objectives**

- Offering of UG, PG courses with updated information and carry out PG research based on farmers problems/issues
- **Second Second Proof** Establishment of value added manure management unit and water quality analysis laboratory
- Development of package of practices for sustainable livestock production in dry land agriculture

# **Facilities Available in the Department**

Sl. No.	Name of the instrument/facility						
1	Water quality analysis laboratory (qualitative examination of metallic and non –metallic impurities)						
2	Spectrophotometer						
3	Electrical conductivity /TDS meter						
4	Turbidity meter						

5	pH meter
6	Weather recording facilities
7	Wool demonstration facilities
8	Shredder cum pulverizer
9	Muffle furnace

#### **Salient Achievements**

#### I. Education

#### Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	25	-	25
Ph.D	8	4	12

#### II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	2	1	-	1	-	-	1
Ongoing	1	1	-	-	-	-	-	1	-
Total	1	1	2	1	-	1	-	1	1

# Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding Agency	Per	iod	Type of event	
Titte	Funding Agency	From	То	Type of event	
Present status, challenges and future scenario of pig farming in Tamil Nadu		22.06.19	23.06.19	State level seminar	

#### Achievement of the Department during 2019-20

- ❖ A state level seminar and cum exhibition on "Present status, challenges and future scenario of pig farming in Tamil Nadu" on 22.06.19 and 23.06.2019 at SMS Mahal Coimbatore. In this seminar about 271 farmers all over from Tamil Nadu participated and get benefitted.
- ❖ In experiential learning programme on "commercial pig rearing" 30 students were imparted hands on training and reared 75 piglets up to market age and sold to progressive farmers. They earned a net profit of Rs. 2,12,482/- A sum of Rs. 1,59,360/- has been paid to the student as their profit share (75%).

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	0	2	staff strength is as follows:
3.	Assistant Professor	0	0	0	Associate Professor : -
	Total	3	1	2	Assistant Professor : - Total : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post	
LIVE	ESTOCK PRODUCTION MA	NAGEN	IENT				
1	Professor	1	1	0		Dr.V.Ramesh	
2	Associate Professor	2	0	2	1	Vacant	
					2	Vacant	
3	Technician	1	1	0		Th.J.Rajeshkumar	
4	Attendant	1	1	0	1	Th.K.Subramaniam	
	Total	5	3	2			
GRA	MIN KRISHI MAUSAM SEV	VA					
1	Technical Officer	1	0	1	Vacant - (However Dr.S.Banupriya, Assistant Professor, Dept., of LPT (D.Sc)., is ordered to work as Technical officer in GKMS scheme, the cost of personnel shall be reimbursed from GKMS scheme)		
	Total	1	0	1			

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Livestock Production Management	1200	1000	· Electrical muffle furnace(1100°c)

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- ❖ Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher	PG Guide				
1	LPM	3	1				

# 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

## Action taken by the college

# 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

# 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

Actual student admitted in last five years							At	trition (	%)				
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
5	1	0	2	2	-	-	-	-	-	100	100	-	-

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

#### 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Livestock Production Management)

Dr.M.Selvaraju, Ph.D.,
Dean
Veterinary College and Research
Institute, Namakkal 637 002.

# M.V.Sc. in Livestock Products Technology

# 6.4 Self Study Report for the Programme: M.V.Sc. (Livestock Products Technology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented as per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

#### **Department of Livestock Products Technology (Dairy Science)**

This department offers UG and PG education. A well equipped dairy plant is available. This department EL programme to the UG students. Paid training programmes are offered for the entrepreneurs. Inplant training is offered for other college students.

# **Objectives**

- ❖ To undertake teaching in the field of dairy science
- \* To conduct research on need based field and industry oriented problems.
- To disseminate research findings to the dairy farmers, entrepreneurs and women self-help groups by conducting training programmes

#### **Facilities Available in the Department**

Sl. No.	Name of the instrument/facility
1.	Milk analyzer
2.	Food Texture Analyzer
3.	Blast Freezer
4.	Glass spray dryer

5.	Bulk Milk Cooler
6.	Ice cream unit with accessories
7.	Modular Deep freezer walk in room
8.	Modular Chiller walk in room
9.	Khoa section
10.	Milk packing, Ghee and Butter section
11.	Glass spray dryer

#### **Salient Achievements**

#### I. Education

#### Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	13	-	13
Ph.D	8	1	9

#### II. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI			University sub-project	Others
Completed	1	-	1	-	-	1	1	1	-
Ongoing	1	-	-	-	-	-	-	1	-
Total	2	-	1	-	-	1	1	2	-

#### Achievement of the Department during 2019-20

❖ A Combined cream separator cum butter churn was developed

# **Department of Livestock Product Technology (Meat Science)**

The Department of Meat Science and Technology was established on 14.6.1985 at VC&RI, Namakkal with a main objective of disseminating knowledge about hygienic slaughter and dressing of food animals, utilization of slaughterhouse by-products, meat borne illnesses and preparation of value added meat products to undergraduate students of B.V.Sc course. Over the years new facilities were added and during the year 2000 the department moved to a separate building constructed under the Part-II Scheme with a model slaughterhouse with overhead rail system. A carcass and by-products utilization centre has been established under Centrally Sponsored Scheme with Central Share of Rs.1.18 Crores and the State Government's Share of Rs. 21.79 lakhs during the year 2005. Now the department is having all basic facilities for hygienic slaughter and dressing of foods animals, pet food processing, preparation of ready to eat meat products and utilisation of slaughter house by- products. With ICAR funding a Under graduate Laboratory & Meat processing laboratory has been established during 2013.

# **Objectives**

- \* Teaching under-graduate and post-graduate courses in the discipline of Meat Science and Technology.
- Conducting research in the area of meat science, processed meat products and by-products utilization.
- To motivate farmers, entrepreneurs and unemployed youth to establish their own meat based enterprises.
- ❖ To transmit the scientific knowledge to the farmers through radio talk, TV talk and booklets.
- To produce wholesome meat and to popularize various value-added meat products.
- ❖ To develop value added meat products from spent hen meat

# **Facilities Available in the Department**

- ❖ Model slaughterhouse with overhead rail system
- Carcass and by-products utilization center
- Semi-automatic pig slaughter line
- Analytical Lab
- Product processing hall and Sensory evaluation lab
- Meat microbiology lab
- Pet food processing unit
- Carcass and by products utilization centre
- \* Retail sale counter at clinical campus

#### **Salient Achievements**

#### I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	12	2	14
Ph.D	7	4	11

#### II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	1	-	-	-	-	-	-		2
Ongoing	-	-	-	-	-	-	-	1	2
Total	1	-	-	-	-	-	-	1	4

# Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Eunding Agency	Per	riod	Type of ayant		
Title	Funding Agency	From	То	Type of event		
One day awareness programme on "Organic Livestock Production"	Agricultural and Processed Food Products Export Development Authority (APEDA), Ministry of Commerce and Industry, Govt. of India.	29.01.2020	29.01.2020	Awareness programme (others)		
One day training programme on "preparation on value added meat products"	Dept. funds	20.05.2019	20.05.2019	training		
One day training programme on "preparation on value added meat products"	Dept. funds	12.07.2019	12.07.2019	training		

# Achievement of the Department during 2019-20

- ❖ Good progress in sale of meat and meat products.
- Good progress in sale of pet food.
- Conductedone day APEDA funded awareness programme on "Organic Livestock Production" on 29.01.2020

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	2	2	0	As per the VCI, the required
2.	Associate Professor	3	3	0	staff strength is as follows:
3.	Assistant Professor	6	6	0	Professor : -
	Total	11	11	0	Associate Professor : -
					Assistant Professor :-
					Total :-

#### **6.4.3** Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post	
LIVE	STOCK PRODUCTS TECH I	NOLOG	Y (DAI	RYSC	IENC	E)	
1	Professor	1	1	0		Dr.G.Kumaresan	
2	Associate Professor	1	1	0		Dr.C.Pandiyan, Professor	
3	Assistant Professor	3	3	0	1	Dr.N.Karthikeyan	
					2	Dr.A.Poorani	
					3	Dr.S.Banupriya	
4	Junior Assistant	1	0	1		Vacant	
5	Attender	2	2	0	1	Th.K.Selvam	
					2	Tmt.R.Pugalarasi	
6	Attendant	2	1	1	1	Th.L.Duraisamy	
					2	Vacant	
	Total	10	8	2			
LIVE	STOCK PRODUCTS TECHN	OLOG'	Y (MEA	T SCI	ENCE	Ε)	
1	Professor	1	1	0		Dr.S.Suresh Kumar, Asso. Prof.	
2	Associate Professor	2	2	0	1	Dr.V.Chandirasekaran, Asst Prof	
					2	Dr.R.Rajkumar, Asst. prof	
3	Assistant Professor	3	3	0	1	Dr.P.Sivakumar	
					2	Dr.M.Muthulakshmi	
					3	Dr.A.Punnagaiarasi	
4	Assistant	1	1	0		Th.B.Ponnusamy	
5	Attender	1	1	0		Th.S.Ravi	
6	Attendant	1	1	0		Th. P. Varadaraj	
7	Boiler Man - Gr.II	1	0	1		Vacant	
8	Master Flayer	1	1	0		Tmt.R.Savithri, Pro.Mazdoor	
	Total	11	10	1			

# **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Livestock Products Technology (Dairy Science)	1200	2000	Milk processing equipment with a capacity of 300 LPH
2.	Livestock Products Technology (Meat Science)	1200	<ul> <li>Slaughter Hall: 3900</li> <li>Carcass Utilization Plant: 3300</li> <li>Pet Food Processing Plant: 1900</li> </ul>	<ul> <li>Sausage Stuffer</li> <li>Vacuum Tumbler Model F 25x</li> <li>Tissue Homogenizer-1</li> <li>Bacteriological Incubator</li> <li>Modular freezing unit</li> <li>Deep freezers</li> <li>Electronic Weighing Balance-500kg</li> </ul>

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher	PG Guide				
1	LPT (DSC)	2	2				
2	LPT (MST)	2	-				

# 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feed back received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

# Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	%)			
2015- 2016					2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	
2	2	3	2	1	1	1	-	-	-	50	100	-	-

# 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- **5.** Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Livestock Products Technology)

Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# M.V.Sc. in Poultry Science

# 6.4 Self Study Report for the Programme: M.V.Sc. (Poultry Science)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

## 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

This department is offering U.G and P.G courses, P.G diploma courses. Centre of Advanced Faculty Training centre for training faculties all over the country. Maintenance of different species of poultry for U.G education and P.G research. Selling day old chicks to the needy farmers.

#### **Objectives**

- Offering courses to U.G and P.G students
- ❖ 21 days training programme to the faculties in CAFT in Avian sciences
- Sale of day old chicks to needy farmers

#### **Facilities available**

Eggshell force gauge with down voltage transformer	To measure eggshell force
Automatic egg incubator	
Modern incubator	
Bomb calorimeter	To measure metabolizable energy value of feed and feed ingredients
Egg multi-tester	To measure all internal characteristics of egg
Meat mincer	To mince the meat for preparation of meat products
Soxtec system	To calculate ether extract of crude fibre and crude protein

Fluroremeter (Mycotoxin Analyser)	To estimate mycotoxin level in the feed	
Fibretec system	To measure crude fibre value of feed and feed ingredients	
Kjeltec system	To measure crude protein value of feed and feed ingredients	
Cooling centrifuge	Poultry genetic Molecular study	
Agar gel electrophoresis	Poultry genetic Molecular study	

#### **Salient Achievements**

#### I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	69	5	74
Ph.D	13	5	18

#### II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	-	5	-	5	9
Ongoing	-	-	-	2	-	-	-	-	1
Total	-	-	-	2	-	5	-	5	10

# Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding	Per	Type of event	
	Agency	From	To	
Practical knowledge sharing on nutrition and value addition in commercial poultry	ICAR	06.11.2019	26.11.2019	21 days training programme
Integrated approach on climate, biosecurity and health management in commercial poultry farming	ICAR	29.01.2020	18.02.2020	21 days training programme

# Achievement of the Department during 2019-20

- ❖ Supply of 3500 4000 day old Japanese quail chicks every week to the needy farmers.
- ❖ Supply of 250 − 300 day old crossbred chicks, turkey poult and fancy chicks every week to the needy farmers.
- ❖ 199820 Japanese quail chicks, 81 Turkey poults, 8047 Cross bred chickes, 5179 Desi fowl chickes and 34 Guinea fowl keets were sold to farmers and generated a revenue of Rs. 6,86,846/-

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	1	1	0	staff strength is as follows:
3.	Assistant Professor	3	3	0	Professor :-
	Total	5	5	0	Associate Professor : - Assistant Professor : - Total : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post		
	POULTRY SCIENCE							
1	Professor	1	1	0		Dr.M.Moorthy		
2	Associate Professor	1	1	0		Dr.R.Amutha, Professor		
3	Assistant Professor	3	3	0	1	Dr.D.Kannan, Professor		
					2	Dr.K.Rajendran		
					3	Dr.V.Kannan		
4	Laboratory Technician	1	1	0		Th.L.Sundaram		
5	Attender	1	1	0		Th.K.Pandian		
6	Attendant	4	4	0	1	Tmt. S.Akhilandeswari		
					2	Th.V.Latchathipathi		
					3	Tmt.S.Malarkodi, Basic Servant		
					4	Tmt.T.Dhanalakshmi, Basic		
						Servant		

7	Time Scale Mazdoor	1	1	0	Tmt.D.Jeyagowri, Prov. Unskilled Mazdoor
	Total	12	12	0	

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Poultry Science	1200	Poultry shedcapacity  Layer 5000 birds  Broiler – deeplitter -500  Broiler – Environmental house – 500  Alternate poultry – 400 birds  Japanese Quail – 3000  Ostrich – 2 acres  Hatchery - 10,000 chickeneggs  Hatchery 2 –30,000 quaileggs	<ul> <li>Molecular biology lab instruments like PCR and other items</li> <li>Poultry feed analysis instruments</li> </ul>

# 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available						
		PG Teacher	PG Guide					
1	PSC	2	2					

# 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feed back received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

# Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were

encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

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#### 3. Language skill programme

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After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years						At	trition (	%)				
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
5	4	4	4	4	1	-	-	25	-	25	50	-	-

# **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. - Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Poultry Science)

Dean

Veterinary College and Research Institute, Namakkal 637 002.

# M.V.Sc. in Veterinary Anatomy

#### 6.4 Self Study Report for the Programme: M.V.Sc. (Veterinary Anatomy)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

#### **Objectives**

- To impart quality education on Veterinary Anatomy to Under Graduate, Post Graduate and Doctoral degree program
- To undertake research projects on Veterinary Anatomy, Histology, Histochemistry and Embryology

# Facilities Available in the Department

Sl. No	Name of the instrument	Utility
1.	Leica Microtome	Tissue sectioning for histological research
2.	Leica Trinocular microscope with image analyzer	To acquire photomicrograph and for taking measurements of histological slides
3	CETI trinocular microscope with camera	For demonstration of Histology slides to undergraduate students during practical classes for better understanding.

#### **Salient Achievements**

#### I. Education

Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	8	-	8
Ph.D	2	3	5

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	1	1	staff strength is as follows:
3.	Assistant Professor	3	2	1	Professor :-
	Total	6	4	2	Associate Professor : - Assistant Professor : - Total : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post
VETI	ERINARY ANATOMY					
1	Professor	1	1	0		Dr. K.Balasundaram
2	Associate Professor	2	1	1	1	Dr. S.Jayachitra, Asst. Prof.
					2	Vacant
3	Assistant Professor	3	2	1	1	Dr.N.Bharathy
					2	Dr.P.Dharani

					3	Vacant
4	Livestock Inspector Gr.II	1	1	0		Tmt.C.Vijayalakshmi, Attendant
5	Attender	1	1	0		Th.C.Ayyamuthu
	Total	8	6	2		

# **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	VeterinaryAnatomy	Lab -1220 Lab- 21800	400	<ul><li>Histobath</li><li>Histotap (Leica)</li></ul>
		21000		<ul> <li>Leica DM 100 trinocular microscope with DFC 290Digital Camera and LAS software</li> </ul>
				<ul><li>Leica microtome with</li><li>accessories</li></ul>

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- ❖ Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of

the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available						
		PG Teacher PG Guide						
1	VAN	1	-					

# 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

# 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

# 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr.AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

# 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

		Actual s	tudent a				Attrition (%)						
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016					2021- 2022	
1	1	-	-	-	-	-	-	-	-	-	-	-	-

# 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- **2.** Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Veterinary Anatomy)

Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# M.V.Sc. in Veterinary and Animal Husbandry Extension Education

#### 6.4 Self Study Report for the Programme: M.V.Sc. (Veterinary & Animal Husbandry Extension Education)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented as per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

Department of Veterinary and Animal Husbandry Extension Education is mainly involved in undertaking teaching, research and extension activities. This department serves as a notable link between the college and farming community through organizing various extension activities. This department also undertakes skill development and self employment training for the unemployed youths and farmers. In addition, queries raised by the farmers are answered directly by office calls, telephone calls and also through advisory letters. Guided visits are conducted regularly to livestock, poultry, and agronomy farms to provide exposure to famers, farmwomen and visitors on various technologies practiced in the farms. Training programmes are organized to impart knowledge and skills to the farmers and farm women of ATMA scheme, entrepreneurs, extension personnel, unemployed Veterinarians and TNPSC aspirants. It is also involved in arrangement of functions, press meet, mass contact programmes, Farm Radio School, radio talk, photo and video coverage.

#### **Objectives**

- ❖ Teaching Undergraduate and Postgraduate education
- Conducting need based research
- \* To transmit scientific knowledge to farmers by way of organizing various extension activities

#### **Salient Achievements**

#### I. Education

#### Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	12	1	13
Ph.D	11	3	14

#### II. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	2	1	-	1	-	1	-	3	5
Ongoing			-		-		-	1	
Total	2	1	-	1	-	1	-	4	5

# Achievement of the Department during 2019-20

- ❖ District level forum committee meeting along with the Regional Joint Director, Department of Animal Husbandry; General Manager, Aavin for joint action to come up with the solutions for field problems at Veterinary College and Research Institute, Namakkal on 5.9.2019, 14.10.2019, 13.11.2019, 12.12.2019 & 24.1.2020
- ❖ Technical meeting for Veterinary Assistant Surgeons of Namakkal district on Functioning of VERU for Disaster management, Downer cow management, Treatment of mastitis and facilities available for testing of mastitis, Analysis of clinical samples (Screening of blood samples) received from private veterinary practitioners at CCL, VC&RI, Namakkal was organised at Veterinary College and Research Institute, Namakkal on 24.12.2019
- ❖ Interaction meet with officials of Animal Husbandry department of Salem, Namakkal and Erode regarding conduct of Buyer Seller Meet cum workshop was held at Veterinary College and Research Institute, Namakkal on 29.10.2019.
- ❖ Interaction meet with 42 senior officials of NABARD regarding the latest developments in livestock sector and intervention of NABARD at field level at Veterinary College and Research Institute, Namakkal on 17.9.2019.
- ❖ TNPSC Coaching class for the veterinary graduates of Tamil Nadu from 27.01.2020 to 14.2.2020.

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	1	1	0	staff strength is as follows: Professor:
3.	Assistant Professor	4	3	1	Associate Professor : -
	Total	6	5	1	Assistant Professor : - Total : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post		
VETE	CRINARY ANIMAL HUSBANI	DRY EX	<b>TENSI</b>	ON ED	UCA	TION		
1	Professor	1	1	0		Dr.N.Narmatha		
2	Associate Professor	1	1	0		Dr.V.Uma Asst. prof		
3	Assistant Professor	4	3	1	1	Dr. K.M.Sakthivel Asso. Prof		
					2	Dr.S.Karthikeyan		
					3	Dr.P.Ponnusamy (Working at Vety. Microbiology)		
					4	Vacant		
4	Typist	1	0	1		Vacant		
5	Attendant	1	1	0		Th.R.Sankar		
6	Photo-grapher Gr.III	1	1	0		Th.N.Suresh		
	Total	9	7	2				

#### **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary and AnimalHusbandry Extension Education	800	513	· Video editing station

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- ❖ Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available						
		PG Teacher PG Guide						
1	VAE	3	1					

# 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

# 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

# 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

			tudent a				Attrition (%)						
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015-         2016-         2017-         2018-         2019-         2020-         2021-           2016         2017         2018         2019         2020         2021         2022				2021- 2022		
1	-	1	1	1	-	-	-	-	-	-	100	-	-

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server via LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- 6. Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. - Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

#### 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Veterinary and Animal Husbandry Extension Education)

.Selvaraju, Ph.D., Veterinary College and Research

Institute, Namakkal 637 002.

# M.V.Sc. in Veterinary Medicine

# 6.4 Self Study Report for the Programme: M.V.Sc. (Veterinary Medicine)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Clinical Medicine was started in the year 1985 to teach Veterinary Clinical Medicine to the under graduate students. Post graduate degree (M.V.Sc.) and Ph.D. degree programmes are being offered from 2006 and 2008 respectively.

#### **Objectives**

- ❖ To impart UG and PG education
- Treatment of sick animals and disease diagnosis at Veterinary College Hospital using special diagnostic aids
- Disease investigation in field during outbreak
- Extension activities
- ❖ Farm advisory service and conducting training programs for the field

Name of the instrument/facility
Colour Doppler Ultrasonography for Large and Small animals
Electrocardiography
Endoscopy for Ruminants, dogs and Horses
Doppler Blood Pressure

12- lead ECG
Oxygen generator
Infusion pump

# **Facilities Available in the Department**

# **Salient Achievements**

# I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	9	3	12
Ph.D	6	-	6
PG Diploma	5	4	9

# II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	-	-	-	1	4
Ongoing	-	-	-	-	-	-	-	4	
Total	-	-	-	-	-	-	-	5	4

# Seminar/Symposium/Training Programmes Organised/Ongoing

T:41.	Euradina Agaman	Peri	od	Toma of around	
Title	Funding Agency	From	To	Type of event	
Oral rhydration and intravenous fluid therapy in large animal practice	Self - 50	12.04.2019	Workshop	Oral rhydration and intravenous fluid therapy in large animal practice	
Oral rhydration and intravenous fluid therapy in large animal practice	Self - 50	31.05.2019	Workshop	Oral rhydration and intravenous fluid therapy in large animal practice	
Current concepts in small animal Cardiology	Self -11	01.06.2019 to 03.06.2019	Training	Current concepts in small animal Cardiology	
Current concepts in small animal Cardiology	Self - 9	19.07.2019 to 21.07.2019	Training	Current concepts in small animal Cardiology	

Current concepts in the diagnosis and management of acute abdomen of cattle and Ileus in cattle	Self - 50	05.07.2019	Workshop	Current concepts in the diagnosis and management of acute abdomen of cattle and Ileus in cattle
Recent advances in clinical diagnostic techniques and ultrasound imaging in cattle	Self - 35	26.07.2019	Workshop	Recent advances in clinical diagnostic techniques and ultrasound imaging in cattle
Management of Downer cow syndrome in cattle	Self - 44	30.09.2019	Workshop	Management of Downer cow syndrome in cattle
Basic in ultrasound imaging techniques in large animal practice	Self - 11	25.11.2019 to 28.11.2019	Training	Basic in ultrasound imaging techniques in large animal practice
Clinical Laboratory techniques and its interpretation in veterinary Practice	Self - 11	13.12.2019	Workshop	Clinical Laboratory techniques and its interpretation in veterinary Practice
Clinical diagnosis and management of cardiac diseases in dogs	Self - 9	26.02.2020	Workshop	Clinical diagnosis and management of cardiac diseases in dogs

# Achievement of the Department during 2019-20

- ❖ Management of Downer cow syndrome in cattle has been standardized.
- ❖ Diagnosis and clinical Management of functional ileus in cow using prokinetic drugs has been standardized.
- Treatment of moderate rumen lactic acidosis in goat using Musa spp. flower has been standardized.
- ❖ Ten Continuing veterinary education program to the practicing veterinarian on various topic including management of downer cow syndrome, fluid therapy in large animals, ultrasound diagnosis of diseases in large animals, small animal cardiology, clinico-pathological diagnosis of diseases etc

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	0	1	As per the VCI, the required
2.	Associate Professor	1	1	0	staff strength is as follows:
3.	Assistant Professor	3	3	0	Professor :-
	Total	5	4	1	Associate Professor : -
					Assistant Professor : -  Total : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post
VETE	ERINARY CLINICALMEDICINI	E				
1	Professor	1	0	1		Vacant
2	Associate Professor	1	1	0		Dr.E.Venkatesakumar (placed as Assistant Professor &Head)
3	Assistant Professor	3	3	0	1	Dr.R.Ravi
					2	Dr.K.Mohanambal
					3	Dr.K.Sasikala
4	Assistant	1	1	0		Tmt. V.Vijaya
5	Attendant	1	0	1		Vacant
	Total	7	5	2		

# **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Clinical Medicine	500	500	<ul><li>Major equipment is kept inclinical complex</li><li>Ultrasound machines</li></ul>
				<ul><li>Dialysis unit</li><li>Endoscopy unit etc</li></ul>

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- ❖ Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available				
		PG Teacher	PG Guide			
1	VCM	3	1			

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

# 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

# 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

# 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

# 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	%)			
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
2	1	3	2	2	4	4	50	100	33	50	-	-	-

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Veterinary Medicine)

Selvaraju, Ph.D.,

Dean

Veterinary College and Research Institute, Namakkal 637 002.

# M.V.Sc. in Veterinary Microbiology

# 6.4 Self Study Report for the Programme: M.V.Sc. (Veterinary Microbiology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Microbiology was started in the year 1985 to teach Veterinary Microbiology to the under graduate students. Post graduate degree (M.V.Sc) and Doctoral program (Ph.D) are being offered from 1994 and 1996 respectively. The department has got state of the art facilities for conduct of advanced research in veterinary microbiology and biotechnology and infrastructure for the diagnosis of livestock and poultry diseases. The Centralized Research Laboratory is also part of this Department endowed with advanced laboratory equipment under one roof to cater the need of Post graduate students and faculties of this institute.

#### **Objectives**

- ❖ To offer courses for under-graduate, post-graduate and doctoral students
- To provide laboratory facilities and guidance for post- graduate and doctoral students
- \* Molecular characterization of etiological agents causing respiratory diseases of layers
- ❖ To link industry and institute in order to conduct need based research
- ❖ To examine various clinical samples for diagnosis of diseases and to offer advice on their control and prevention
- To impart training to field veterinarians on recent advances in microbiology

# **Facilities Available in the Department**

Sl. No.	Name of the instrument/facility
1.	Ultra centrifuge
2.	Real time PCR machine
3.	Gradient PCR Machine
4.	Nano Drop Spectrophotometer
5.	Gel documentation system
6.	CO2 Incubator
7.	Biosafety Cabinet Class II
8.	Inverted Microscope
9.	-86 <sup>0</sup> C Deep freezer
10.	ELISA reader with automated washer
11.	Freeze dryer
12.	UV-Vis spectrophotometer
13.	Digital balance
14.	Complete electrophoresis system
15	AXIOPLAN High Resolution Microscope
16	Laminar air flow

# **Salient Achievements**

# I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	41	-	41
Ph.D	14	3	17

# II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	1	1	-	14	-	-	2
Ongoing	-	-		1	-		-	1	1
Total	-	-	1	2	-	14	-	1	3

#### Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Eunding Agency	Per	riod	Type of ayout
Title	Funding Agency	From	To	Type of event
Avian influenza- its preparedness and control	ASCAD	18.06.2019	18.06.2019	Training program for paravets
Awareness program on "Poultry Biosecurity"	State funded scheme run by Central University Laboratory, TANUVAS	28.01.2020	28.01.2020	Awareness program
Molecular Diagnosis of Poultry Disease	Kemin Industries	17.02.2020	21.02.2020	Workshop
Molecular and Serological Techniques" was conducted for 15 UG students of MVC and VC&RI, Namakkal	NAHEP-ICAR &IDP -TANUVAS	21.11.2019	23.11.2019	Training program
"Animal Tissue culture" conducted for 30 students from RVS college of Arts and Science, Sulur, Coimbatore	Self	26.09.2019.	26.09.2019.	Hands on Training

# Achievement of the Department during 2019-20

- \* Released a monograph comprising Post graduate research findings of the Department
- ❖ 'Incidence of disease in correlation with weather data from the year 2010-2019' pertaining to Department of Veterinary Microbiology, VCRI, Namakkal was published.
- \* Roof provision was created in front of Avian Molecular Laboratory to avoid entry of rain water in to the laboratory.
- ❖ Introduced proper Biomedical waste disposal system in Centralized research laboratory and Avian molecular laboratory.
- Standardized antemortem diagnosis of Rabies virus in saliva sample by PCR
- ❖ Investigated the parvo viral infection in dogs and the molecular characterization revealed that the Parvo virus belongs to CPV 2b.

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	2	0	staff strength is as follows:
3.	Assistant Professor	2	1	1	Professor :-
	Total	5	4	1	Associate Professor : -
					Total :-

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Name of the incumbent holding thepost		
VET	ERINARY MICROBIOLOGY				r	,	
1	Professor	1	1	0		Dr.K.Sukumar	
2	Associate Professor	2	2	0	1	Dr.A.Thangavelu, (Professor and Head)	
					2	Dr.P.Suresh Asst. prof.	
3	Assistant Professor	2	1	1	1	Dr.S.Saravanan, Professor	
					2	Vacant	
4	Technician Gr.II	1	1	0		Th.P.Sundaram, Attender	
5	Attendant	1	0	1	Vacant		
	Total	7	5	2			

#### **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Microbiology	Lab- 1200 Lab 2 – 600 Poultry disease surveillancelab- 1200	Centralised research Lab-1200	<ul> <li>Ultracentrifuge</li> <li>RT-PCR</li> <li>Gradient PCR</li> <li>Nano-drop</li> <li>Gel-doc</li> <li>Deep Freezer</li> </ul>

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teac	hers available			
		PG Teacher PG Guide				
1	VMC	3	2			

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A. Feed back from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

# 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

# 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

# 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years								At	trition (	%)		
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015-         2016-         2017-         2018-         2019-         2020-           2016         2017         2018         2019         2020         2021				2021- 2022		
1	1 - 1 1 1 -					-	-	-	-	100	100	-	-

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Veterinary Microbiology)

Dr.M.Selvaraju, Ph.D.,

Dean

Veterinary College and Research Institute, Namakkal 637 002.

# M.V.Sc. in Veterinary Parasitology

# 6.4 Self Study Report for the Programme: M.V.Sc. (Veterinary Parasitology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Parasitology at VCRI, Namakkal was established in the year 1985. The staff positions are two Professors, three Assistant Professors and one technician. The department offers undergraduate and postgraduate courses in Veterinary Parasitology. Undergraduate courses are offered in the third year of B.V.Sc., following the pattern stipulated in MSVE' 2016. During 1993, this department was recognized as a post graduate department for the award of M.V.Sc. degree and in 2006, this department started offering Ph.D., degree courses.

#### **Objectives**

- ❖ To fulfil the curriculum needs of UG and PG courses.
- To undertake external funded/ private agency sponsored/ self financing research projects on parasitic diseases
- Screening of clinical samples received from Veterinary Hospitals and Veterinary University and Training Centres for parasitic detection.
- To advise farmers on the importance of parasitic infections and the methods to be adopted for effective control of the same.

# **Facilities Available in the Department**

Sl. No.	Name of the instrument/facility
1	Inverted phase contrast microscope
2	QBC Paralens
3	BOD incubator
4	Microcentrifuge (Remi)
5	Laminar flow (Klenz flow)
6	Gel doc system (Biorad)
7	Gel electrophoresis system (Biorad)
8	Refrigerated Microcentrifuge (Eppendorf)
9	Deep freezer ( New Brunswick)
10	Master cycler gradient (Eppendorf)
11	Microscope with image capturing (Carl Zeiss)
12	Experimental animal shed

# **Salient Achievements**

#### I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	17	-	17
Ph.D	9	2	11

#### II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	2	-	1	1	-	-	-	09
Ongoing	-	-	-	-	-	-	-	-	-
Total	-	2	-	1	1	-	-	-	09

- **❖** Achievement of the Department during 2019-20
- Offered UG,PG and Ph.D., courses
- ❖ Contributed for the development of e-course on Veterinary Parasitology
- ❖ Two M.V.Sc., students successfully completed their course
- ❖ A total number of samples examined: 1223 and notable diseases are *Parascaris equorum, psoroptes cuniculi, Setaria sp and Ascaris suum* Handled classes for UG students of Chattogram
- ❖ Veterinary and Animal Sciences ersity, University, Bangladesh from 19.06.2019 to 20.06.2019

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	0	0	0	As per the VCI, the required staff strength is as follows: Professor :- Associate Professor :- Assistant Professor :- Total :-
2.	Associate Professor	3	3	0	
3.	Assistant Professor	4	3	1	
	Total	7	6	1	

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Name of the incumbent holding thepost				
VET	VETERINARY PARASITOLOGY								
1	Associate Professor	3	3	0	1	Dr.G.Ponnudurai Prof. & Head			
					2	Dr.K.Arunachalam, Professor			
					3	Dr.K.Thangavel (Asst. prof ) work at Dept. of Microbiology			
2	Assistant Professor	4	3	1	1	Dr.N.Rani, (Asso. Prof)			
					2	Dr. P.Anbarasi			
					3	Dr.K.Dhandapani			
					4	Vacant			
3	Junior Assistant	1	0	1		Vacant			
4	Technician Gr.II	2	1	1	1	Th.V.Thangavelu, Attender			
					2	Vacant			
5	Attendant	1	0	1	1	Vacant			
	Total	11	7	4					

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Parasitology	1269	912	<ul> <li>Ultrasonic Homogeniser         Labsonic-U</li> <li>All Quartz Double Distillation</li> <li>Apparatus</li> <li>Leitz Laborluxs Binocular         Research with</li> </ul>
				<ul><li>Photomicrography microscope</li><li>Laminar Air Flow (Klenzaids)</li></ul>

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much offthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- ❖ Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care

is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher	PG Guide				
1	VPA	3	1				

### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above

programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years						1	Attrition	1 (%)				
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021-2022
1	1	2	1	-	-	-	-	-	-	100	-	-	-

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

## Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

## 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Veterinary Parasitology)

Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# M.V.Sc. in Veterinary Pathology

## 6.4 Self Study Report for the Programme: M.V.Sc. (Veterinary Pathology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

## 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

#### **Objectives**

- Offering U.G. courses for B.V.Sc., students and P.G. course for M.V.Sc. and Ph.D., students.
- Providing laboratory facilities and guidance to M.V.Sc., and Ph.D., students.
- \* Conducting post mortem examination on Livestock and Poultry for academic and diagnostic purposes.
- Screening the clinical materials and histopathological sections to aid in confirmation of diseases

### **Facilities Available in the Department**

Name of the instrument	Utility
Leica microtome 2035	Histopathology
Leica Microtome 2125	Histopathology
Microscope Leica with Digital camera DM 1000	Screening slides and capturing images
Autoanalyzer with standard accessories	Serum biochemical parameters analysis
Vet scan HM Hematology system	Haematology parameters analysis
Deep Freezer -80° C (Haier Medical)	Preservation of tissue, serum, plasma and swabs
Analytical balance - Sartorius	Weighing chemicals and drugs

#### **Salient Achievements**

#### I. Education

## Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	36	2	38
Ph.D	7	3	10

#### II. Research

## **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	-	3	-	-	-
Ongoing	-	-	-	-	-	-	-	1	-
Total	-	-	-	-	-	3	-	1	-

## Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding Agonov	Perio	od	Type of ayant
Title	Funding Agency	From	To	Type of event
Training Programme	Training programme on "Necropsy examination and diagnosis of poultry diseases" for 10 veterinarians from M/s Suguna Foods Pvt. Ltd.,	M/s Suguna Foods Pvt. Ltd.,	26.03.2019- 28.03.2019	Training Programme
Training Programme	Model training course (MTC): Field based disease diagnostic techniques in animal husbandry for improving animal health status"	Ministry of Agriculture and Farmer's Welfare, GOI, New Delhi	19.02.2020- 26.02.2020	Training Programme

## Achievement of the Department during 2019-20

- ❖ Postmortem diagnosis of various disease in livestock poultry and wild animals are being done
- \* Histopathological examinations are being offered for various disease conditions in VCRI hospital campus.
- ❖ E-course on "VPP 321 Avian Pathology" was created
- \* Colour atlases on "PM observations on Livestock and Poultry and Animal Tumours" were prepared
- \* Research works on various mycotoxicoses were extensively studied in poultry
- \* Research on various emerging and re-emerging diseases in poultry was carried out
- Advanced molecular pathology works on economically important viral and bacterial disease were carried out
- ❖ Molecular characterization of common animal neoplasm was done

## 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies		
1.	Professor	1	1	0	As per the VCI, the required		
2.	Associate Professor	2	1	1	staff strength is as follows: Professor:		
3.	Assistant Professor	3	3	0	Associate Professor : -		
	Total	6	5	1	Assistant Professor : - Total : -		

## 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Name of the incumbent holding thepost	
VET	ERINARY PATHOLOGY					
1	Professor	1	1	0		Dr.G.A.Balasubramaniam
2	Associate Professor	2	1	1	1	Dr.P.Srinivasan, Professor
					2	Vacant
3	Assistant Professor	3	3	0	1	Dr.P.Balachandran, Prof
					2	Dr.R.Madheswaran
					3	Dr.M.Sasikala
4	Assistant	1	1	0		Tmt.S.Vadivukkarasi
5	Attender	1	1	0		Th.S.Chandrasekaran
6	Attendant	1	1	0		Th.M.Kathirselvan
7	Animal Attendant	1	1	0		Th.V.Arumugam, Attendant
	Total	10	9	1		

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm

facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Pathology	1050	300 (histopathology)	<ul> <li>Microtome 2035</li> <li>Histotap plus</li> <li>Histoblock</li> <li>Nikon trinocular Microscope E200</li> <li>Auto analyser with accessories</li> </ul>

## 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor/support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly

evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available						
		PG Teacher	PG Guide					
1	VPP	2	2					

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

### Action taken by the college

## 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

## 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

## 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	%)			
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022						2021- 2022	
1	2	1	3	2	4	2	-	-	-	66	50	-	-

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

## Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

#### 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Veterinary Pathology)

Dr.M.Selvaraju, Ph.D.,

Dean

Veterinary College and Research
Institute, Namakkal 637 002.

## M.V.Sc. in Veterinary Pharmacology and Toxicology

## 6.4 Self Study Report for the Programme: M.V.Sc. (Veterinary Pharmacology and Toxicology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

## 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Pharmacology and Toxicology was established as one of the premier constituent units in the Veterinary College and Research Institute, Namakkal, of Tamil Nadu Veterinary and Animal Sciences University, on 14.06.1985 with the main objective of imparting education for the under graduate and post graduate students of Veterinary Science.

## **Objectives**

- ❖ To impart education in Veterinary Pharmacology and Toxicology to Undergraduate / Postgraduate and Doctoral degree students.
- ❖ To carryout need based pharmacological and toxicological research on natural and synthetic drugs and their products.
- ❖ To offer drug information services to farming and scientific community

## Facilities available in the Department

S.No	Name of the Instrument/ facility
1.	UV-VIS Spectrophotometer
2.	Vertical Laminar air flow
3.	Digital Plethysmometer

#### **Salient Achievements**

#### I. Education

## Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	13	1	14
Ph.D	04	-	4

#### II. Research

## **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	4	6	-	-	2
Ongoing	-	-	-	-	-	-	-	1	2
Total	-	1	1	-	-	2	-	-	-

## Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding	Period		Type of event	
Title	Agency	From	То	Type of event	
Brain storming session with poultry veterinarians and faculties of Veterinary College and Research Institute, Namakkal, to discuss the field problems and their solutions, and to identify the research gaps	NA	29.03.2019	Others	Brain storming session with poultry veterinarians and faculties of Veterinary College and Research Institute, Namakkal, to discuss the field problems and their solutions, and to identify the research gaps	
Organized the 'Engagement with Budding vets' programme	Virbac Animal Health Care	27.06.2019	Others	Organized the 'Engagement with Budding vets'	
	Ltd.			programme	

## Achievement of the Department during 2019-20

- ❖ Developed E-learning content for the course Veterinary Pharmacology and Toxicology
- \* Computer Aided Learning module for experimental pharmacology in laboratory animals
- ❖ Developed a text book on Multiple Choice Questions (MCQ) in Veterinary Pharmacology and Toxicology for Under graduate and Post graduate students under ICAR Development Grant (2017 − 18)

- \* Mapped lead level in Namakkal District and assessed the developmental neurotoxicity in Zebrafish
- ❖ Disseminated the ethnoveterinary knowledge to farming community, Veterinarians working in government organizations and TANUVAS faculties.
- Prepared herbal saplings and distributed to needy farmers
- ❖ Pharma Quiz for IV and V year Students on 13.02.2019
- ❖ Vaccine procurement and distribution for 'District level anti-rabies mass vaccination campaign for pet animals at Namakkal district' on the eve of World Rabies Day 28.09.2018.
- Herbal Garden maintenance and sale of herbal saplings
- ❖ 50 farmers from Kangeyam Cattle Research Centre under ATMA scheme visited herbal garden on 13.09.2019.
- ❖ Bihar Veterinary College final year B.V.Sc., & A.H students (33 Nos) visited the herbal garden on 28.01.2020.
- ❖ Dr. R. Yogeswari and Dr. M. Sakthi Priya took TNPSC coaching class at VCRI, Namakkal on 29.01.2020

## 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	1	1	staff strength is as follows: Professor:
3.	Assistant Professor	3	3	0	Associate Professor : -
	Total	6	5	1	Assistant Professor : - Total : -

## 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

## VETERINARY COLLEGE AND RESEARCH INSTITUTE, NAMAKKAL

Sl. No.	Name of the Post  ERINARY PHARMACOLOGY A	Sanction Strength	Staff in position	No. of Vacancy	Name of the incumbent holding thepost			
1	Professor	1	1	0		Dr.A.Jagadeeswaran		
2	Associate Professor	2	1	1	1	Dr.M.J.Raja (Asst. prof)		
					2	Vacant		
3	Assistant Professor	3	3	0	1	Dr.P.Mekala (Working atPDDSL)		
					2	Dr.R.Yogeswari (working at Educell)		
					3	Dr.P.Sankar		
4	Junior Assistant	1	0	1		Vacant		
5	Livestock Ins.Gr.II	1	0	1		Vacant		
6	Attendant	1	1	0	Th.A.Subramaniam			
	Total	9	6	3				

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Pharmacology and Toxicology	1200	-	<ul> <li>UV Visible Double Beam         Spectrophotometer – PC based     </li> <li>Rotary Vacuum Evaporator</li> <li>Tissue homogenizer</li> </ul>

## 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

## 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available						
		PG Teacher	PG Guide					
1	VPT	6	3					

## 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A. Feed back from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

## 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

## 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	%)		
2015- 2016					2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	
2						-	-	-	66	50	-	-

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.

- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- 6. Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. - Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.
- 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Veterinary Pharmacology and Toxicology).

Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# M.V.Sc. in Veterinary Physiology

#### 6.4 Self Study Report for the Programme: M.V.Sc. (Veterinary Physiology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented as per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

## 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Physiology was established during 1985 and has been offering undergraduate courses since then. The postgraduate programme was started in the Department during the year 2000. To its credit, the Department has well equipped radioimmunoassay Laboratory and gas chromatography facility. Apart from undergraduate and postgraduate teaching, the Department involves in the research and provides analytical facility.

## **Objectives**

- Imparting education to the Undergraduate and Postgraduate students in Veterinary Physiology
- Undertaking Research in Veterinary Physiology

#### **Facilities Available in the Department**

Sl. No	Name of the instrument	Utility
1.	Gas chromatograph	To analyze fatty acids composition
2.	Gamma counter	To analyze hormone profile
3.	UV-VIS Spectrophotometer	To analyze biochemical profile

#### **Salient Achievements**

#### I. Education

## Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	12	-	12
Ph.D	5	2	7

#### II. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	1	-	-	-	1	1	1	7	-
Ongoing	2	-	-	-	-	-	-	-	1
Total	3	-	-	-	1	1	1	7	1

## Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding	Per	iod	Type of avent	
Title	Agency	From To		Type of event	
"Application of progesterone impregnated intravaginal sponges to synchronize and or to induce estrus in dairy animals - An update to large animal veterinarians"	Under Self financing scheme	29.11.2019	Workshop	"Application of progesterone impregnated intravaginal sponges to synchronize and or to induce estrus in dairy animals - An update to large animal veterinarians"	

## Achievement of the Department during 2019-20

❖ Organized a workshop on "Application of progesterone impregnated intravaginal sponges to synchronize and or to induce estrus in dairy animals - An update to large animal veterinarians"

## 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	1	1	staff strength is as follows:
3.	Assistant Professor	3	3	0	Associate Professor : -
	Total	6	5	1	Assistant Professor : - Total : -

## 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

## VETERINARY COLLEGE AND RESEARCH INSTITUTE, NAMAKKAL

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Name of the incumbent holding thepost			
VET	ERINARY PHYSIOLOGY							
1	Professor	1	1	0		Dr.P.Selvaraj		
2	Associate Professor	2	1	1	1	Vacant		
					2	Dr.K.Ramesh		
3	Assistant Professor	3	3	0	1	Dr.T.Sathya Bama		
					2	Dr.M.Prabhu		
					3	Dr.K.Devipriya		
4	Attender	1	1	0		Tmt. S.Rajeswari		
5	Attendant	1	1	0	Th.M.Kumarasamy			
	Total	8	7	1				

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary	1200	600	❖ Spectrophotometer
	Physiology	1200	600	<ul> <li>Gas chromatograph</li> </ul>
				❖ Gamma counter
				Stereo microscopes
				* Research microscopes

## 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher PG Guide					
1	VPY	2	1				

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

## 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

## 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

## 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

Actual student admitted in last five years							At	trition (	%)				
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
1	-	-	-	-	-	1	-	-	-	-	-	-	-

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

## Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

#### 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Veterinary Physiology)

Dr.M.Selvaraju, Ph.D.,
Dean
Veterinary College and Research
Institute, Namakkal 637 002.

# M.V.Sc. in Veterinary Surgery and Radiology

## 6.4 Self Study Report for the Programme: M.V.Sc. (Veterinary Surgery and Radiology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

## 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilledprofessionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Surgery and Radiology was started in the year 1985 to teach Veterinary Surgery to the under graduate students. Post graduate degree (M.V.Sc.) and Ph.D. degree programmes are being offered from 2001 and 2004 respectively.

#### **Objectives**

- ❖ To impart UG and PG education
- ❖ Treatment of animals and disease diagnosis at Veterinary College Hospital using special diagnostic aids like radiography and CT scan
- Disease investigation in field especially surgical cases
- Extension activities
- Farm advisory service and conducting training programs for the field veterinarians

## Facilities available in the Department

Sl. No.	Name of the instrument/facility						
1	Argus multigas monitor with spirtometer						
2	Autoclave Horizontal model						
3	C-Arm unit						
4	Genious 60 mobile X-ray unit						

5	Computerized Radiography unit
6	Ceiling fixed shadowless lamp
7	Operating microscope
8	Hydraulic operation table for large animals
9	Hydraulic operation table for Small animals
10	Patient Vital sign Monitoring System
11	X-ray unit 500 mA
12	Operating light with CCTV
13	Large Animal Gaseous Anaesthetic machine
14	Computated Tomography procedure - Calf
15	Gaseous anaesthesia - Cat
16	Gaseous anaesthesia - Cow
17	Gaseous anaesthesia - Dog
18	Gaseous anaesthesia - Turkey

## **Salient Achievements**

## I. Education

## Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total	
M.V.Sc	1	5	6	
Ph.D	-	2	2	

## II. Research

## **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	-	-	-	-	-
Ongoing	-	-	-	-	-	-	-	1	-
Total	-	-	-	-	-	-	-	1	-

#### Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding	Per	riod	Type of event	
Title	Agency	From	То		
XXXV Annual Convention of the Indian Society for Study of Animal Reproduction (ISSAR) and International Symposium at Department of Veterinary Gynaecology and Obstetrics, Veterinary College and Research Institute, Namakkal – 637 002		18.12.19	20.12.19	International Symposium and Annual convention of the Indian Society for Study of Animal Reproduction (ISSAR)	

### Achievement of the Department during 2019-20

## **Hospital Services - Cases Treated - April 2019 - Jan.2020**

April 2019 – Jan.2020	Dogs	Cats	Birds	Calves	Sheep	Goats	Cattle	Buffalo	Horses	Others	Total
Out- patient	3454	339	113	125	168	1206	1714	176	67	37	7399
IP cases	8	0	0	1	0	2	299	14	27	0	351
TOTAL										7750	

#### Surgeries and X Rays

- Performed 110 major and 83 minor surgeries and 13 neutering in small animals and 198 minor and 74 major surgeries in large animals.
- ❖ In the radiology section 1037 plain radiographs and 10 contrast radiographs were taken in small animals and 401 plain radiographs and two contrast radiographs were taken in large animals.
- Large Animal Gastro intestinal surgeries in cattle has been standardized in regional nerve block and under injectable and Gaseous anesthetics
- Diagnosis and Surgical Management of diaphragmatic hernia in bovine under gaseous general anaesthesia has been standardized.
- ❖ Anaesthetic protocol for feline ovariohysterectomy has been standardized.

## 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	1	1	staff strength is as follows: Professor:
3.	Assistant Professor	3	0	0	Associate Professor : -
	Total	6	5	1	Assistant Professor : - Total : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Name of the incumbent holding thepost		
VET	ERINARY SURGERY AND RAD	IOLO	GY				
1	Professor	1	1	0		Dr.S.Dharmaceelan	
2	Associate Professor	2	1	1	1	Dr.S.Kathirvel, Professor	
					2	Vacant	
3	Assistant Professor	3	3	0	1	Dr.K.Jayakumar	
					2	Dr.K.Ramya (Working atEducation cell)	
					3	Dr.K.Vijayakumar	
4	Typist	1	0	1		Vacant	
5	Livestock Inspector Gr.II	1	1	0		Th.M.Sampath, Attender	
6	Attendant	1	1	0		Th.G.Manoharan	
	Total	8	7	1			

# **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Surgery andRadiology	600	800	<ul> <li>Major instruments are kept at clinical complex</li> <li>C-Arm</li> </ul>
				<ul> <li>Digital X-Ray unit</li> <li>Large animal anaesthesia</li> <li>apparatus</li> </ul>
				<ul> <li>Other Operation theatre accessories for small and large animals surgery</li> </ul>

# 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor/support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of

the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available						
		PG Teacher	PG Guide					
1	VSR	5	3					

# 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

# Action taken by the college

# 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

# 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

# 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	%)		
2015- 2016						2015-     2016-     2017-     2018-     2019-     2020-     2021-       2016     2017     2018     2019     2020     2021     2022					2021- 2022	
2	2 1 - 2 3 3 3					-	-	-	-	-	-	-

# 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Veterinary Surgery and Radiology)

Dr.M.Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# M.V.Sc. in Veterinary Public Health

# 6.4 Self Study Report for the Programme: M.V.Sc. (Veterinary Public Health)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented as per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

This department was newly created in Veterinary College and Research Institute, Namakkal during the year 2018 as per Veterinary Council of India – Minimum Standards of Veterinary Education Regulations (VCI-MSVE) -2016. This department is routinely offering UG courses as per old (2008) and new (2016) VCI regulations. Department is being strengthened with needy equipments as per VCI regulations. Staff from this department are routinely attending Infectious disease unit at Veterinary Clinical Complex, VC&RI, Namakkal for treatment and control of infectious diseases of pet animals. This department routinely conducting awareness programme to the staff, students and public on the eve of World Tuberculosis Day, World Zoonoses Day, World Rabies Day and World environment day.

#### **Objectives**

- To impart UG education in the discipline of Veterinary Public Health and Epidemiology for long-term benefit of human and animal welfare.
- To improve and enhance the quality of animal and human health by application of specialized knowledge and skills of epidemiology and population medicine.
- To undertake field oriented research projects on epidemiology of zoonotic diseases and modelling for effective implementation of strategic measures.
- ❖ To disseminate scientific knowledge on meat and milk hygiene, public health and zoonotic diseases to the healthcare professionals and public

# Facilities available in the Department

Sl. No.	Name of the instrument/facility
1.	Serological water bath
2.	Digital pH meter
3.	Electronic weighing balance
4.	Laminar flow (vertical)
5.	Spinwin
6.	Spectrophotometer
7.	Hot airoven
8.	Cooling Incubator
9.	Centrifuge
10.	B.O.D incubator
11.	Deep freezer (-18°C)
12.	Tissue homogenizer
13.	Rotary shaker
14.	Somatic cell counter
15.	Vortex shaker
16.	Magnetic stirrer
17.	Biosafety cabinet level II

# **Salient Achievements**

# I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	12	4	16
Ph.D	10	-	10

# II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	-	-	-	-	-
Ongoing	-	-	-	-	-	1	-	-	-
Total	-	-	-	-	-	1	-	-	-

# Achievement of the Department during 2019-20

- ❖ World Tuberclosis day celebrated on 25.03.2019
- ❖ World Zoonosis day celebrated on 09.07.2019
- ❖ World Rabies day celebrated on 28.09.2019

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	0	0	0	As per the VCI, the required
2.	Associate Professor	1	1	0	staff strength is as follows:
3.	Assistant Professor	1	1	0	Associate Professor: 1
	Total	2	2	0	Assistant Professor: 1 Total: 3

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

SI. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Nai	me of the incumbent holding thepost
VET	ERINARY PUBLIC HEALTH AN	ND EPI	DEM	IOLO	GY	
1	Associate Professor	1	1	0		Dr.G.Selvaraju Professor & Head
2	Assistant Professor	1	1	0		Dr.M.Geetha
	Total	2	2	0		

# 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Public Health and Epidemiology	1000	-	<ul><li> High end microscope</li><li> Laminar air flow station</li><li> Spectrophotometer</li></ul>

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available						
		PG Teacher PG Guide						
1	VPH	1	1					

# 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

# Action taken by the college

# 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

# 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	%)			
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
-	-	-	-	-	-	-	-	-	-	-	-	-	-

# 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- **5.** Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. - Yes

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for M.V.Sc (Veterinary Public Health)

# M.V.Sc. in Veterinary Biochemistry

# 6.4 Self Study Report for the Programme: M.V.Sc. (Veterinary Biochemistry)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The department of Veterinary Biochemistry started functioning since 1985 at Veterinary College and Research Institute, Namakkal. The department offers four undergraduate courses for the first, third, fourth and final year of B. V. Sc & A.H and also minor courses for Post-graduate and Doctoral programmes. The department has well-furnished laboratory facilities for both UG and PG students with basic instruments like spectrophotometer, refrigerated centrifuge, electrophoresis, gel documentation, chromatography units, etc., for effective teaching and research. The department routinely helpful in analysis of clinical samples at Clinical Biochemistry Laboratory-Veterinary Clinical Complex, Namakkal. The department extends research guidance and support to all the PG and Ph.D scholars of VC & RI and also to scholars from other universities.

# **Objectives**

- \* Teaching biochemistry to the undergraduate and postgraduate students
- Offering analytical advice to the postgraduate students.
- Analysis of clinical samples

# Facilities available in the Department

Name of the instrument/facility
Spectrophotometer, Colorimeter
Refrigerated centrifuge
Electrophoresis and chromatography units
Gel documentation

#### **Salient Achievements**

#### I. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	1	-	-	-	-
Ongoing	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	1	-	-	-	-

# Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding Agency	Per	Type of event	
Title	Funding Agency	From	То	Type of event
Molecular biology techniques for genome analysis	-	30.05.2019	13.06.2019	Training

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies		
1.	Professor	0	0	0	As per the VCI, the required		
2.	Associate Professor	1	1	0	staff strength is as follows: Professor:		
3.	Assistant Professor	2	1	1	Associate Professor : -		
	Total	3	2	1	Assistant Professor : - Total :-		

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Na	ame of the incumbent holding thepost
VET	ERINARY BIOCHEMISTRY				1	1
1	Associate Professor	1	1	0		Dr.R.Prakash Krupakaran, Professor
2	Assistant Professor	2	1	1	1	Dr.S.Jayachandran, Professor & Head,
					2	Vacant
3	Attender	2	2	0	1	Th.R.Arangavadivelan
					2	Th.A.Bronson
4	Attendant	1	0	1		Vacant
		6	4	2		

#### **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Biochemistry	1200	-	<ul><li>Spectrophotometer</li><li>Digital analytical balance</li></ul>

# 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures,

emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor/support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher	PG Guide				
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#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised

of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

# 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

# 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

# 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

Actual student admitted in last five years							At	trition (	%)				
2015-	2016-	2017-	2018-	2019-	2020-	2021-	2015-	2016-	2017-	2018-	2019-	2020-	2021-
2016	2017	2018	2019	2020	2021	2022	2016   2017   2018   2019   2020   2021			2022			
-	-	-	-	-	-	-	-	-	-	-	-	-	-

# **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- **3.** Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for MVSc (Veterinary Biochemistry)

M.Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# 6.4 SELF STUDY REPORT FOR DOCTORAL PROGRAMME (Ph.D)

# Ph.D. in Animal Genetics and Breeding

# 6.4 Self Study Report for the Programme: Ph.D. (Animal Genetics and Breeding)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Animal Genetics and Breeding was established during the year 1987 for offering Undergraduate courses. The Postgraduate programme was stared in the Department during the year 1993. To its credit, the Department has well equipped Cytogenetics and Molecular Genetics Laboratory. Apart from Undergraduate and Postgraduate teaching, the Department involves in the survey, evaluation and Characterization of native breeds of livestock. The Department has completed the Survey, Evaluation and Phenotypic Characterization of native breeds of livestock viz., Kangayam cattle, Toda buffalo, Kanni Adu & Kodi Adu goats and Vembur & Coimbatore sheep. Monographs on Kangayam Cattle, Coimbatore Sheep and Kanni Adu & Kodi Adu Goats were published. Reported the performance of Jersey cattle at Exotic Cattle Breeding Farm, Eachenkottai and Murrah buffalo at Central Cattle Breeding Farm, Alamadhi, Chennai. Studied the genotoxic effect of industrial pollution on chromosomes of cattle and goats in the industrial areas. Postgraduate laboratory is equipped with Real Time PCR, Thermal Cycler, Gel Documentation System, Refrigerated Centrifuge, Ultra Low Temperature Freezer, Gel Rocker, Tube Agitator, Gel Dryer, SCC Reader, Mini Spin, Laminar Flow Clean Air Work Station and Leica DM2500 Trinocular Photo Microscope to carryout research in the field of Cytogenetics and Molecular Genetics.

# **Objectives**

- To offer Animal Genetics and Breeding courses to undergraduate and postgraduate students
- ❖ To formulate new research projects / schemes with financial assistance from University / external funding agencies.
- Survey, evaluation and characterisation of native breeds of livestock.

Molecular characterisation of trait specific genes pertaining to production, reproduction and disease resistance

# **Facilities Available in the Department**

# Cytogenetic laboratory

- ❖ Monocular Student Microscope [M/s. Gerhardt]
- ❖ Leica DM2500 Trinocular Research Microscope [M/s.Leica]
- ❖ Vertical Lamiar Air Flow [M/s. Klenzaids]

# **Molecular Genetics Laboratory**

- ❖ Sequi-Gen GT System & Power Pack [M/s. BioRad]
- ❖ Gel Documentation system [M/s. BioRad]
- **❖** ThermalCylcer −[M/s. BioRad]
- \* Refrigerated Centrifuge [M/s. Eppendorf]
- ❖ Deep Freezer (-80 C) [M/s. Panasonic]
- Real Time PCR [M/s. Illumina]

#### **Salient Achievements**

#### I. Education

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	16	-	16
Ph.D	7	2	9
PDF	1		1

#### II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	1	2	0	0	1	1	2	1	3
Ongoing	0	0	0	0	0	0	0	1	0
Total	1	2	0	0	1	1	2	2	3

# Achievement of the Department during 2019-20

- ❖ A comprehensive study on the genetic diversity, population structure and phylogeography of South Indian cattle breeds has been carried out along with the two exotic breeds (HF and Jersey) and two crossbreds.
- ❖ Estimated population of Tiruchy Black sheep (19,509 numbers) exhibits sustainable decline in the population and warrants conservation

- ❖ About 200 sheep samples screened for the presence of 'FecB Gene' in farmers sheep flocks for better mating plan.
- ❖ Analysed of Single-Stranded Conformational Polymorphism at 3'UTR of SLC11A1 Gene in Jersey Crossbred Cattle

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	1	1	staff strength is as follows:  Professor:
3.	Assistant Professor	3	3	0	Associate Professor : -
	Total	6	5	1	Assistant Professor : - Total : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

SI. No.	Name of the Post	Sanctioned strength	Staff in Position	No. of Vacancy		Name of the incumbent holding the post
1	Professor	1	1	0	1	Dr.A.K.Thiruvenkadan
2	Associate Professor	2	1	1	1	Dr.N.Murali Prof. & Head
					2	Vacant
3	Assistant Professor	3	3	0	1	Dr.R.Saravanan
					2	Dr.M.Malarmathi
					3	Dr.M.Jeyakumar
4	Superintendent	1	1	0		Tmt.R.Anbuchelvi
5	Technician	1	0	1		Vacant
6	Special Attender	1	1	0		Th.M.Maruthavel, Attender
7	Attendant	1	1	0		Th.P.Subramaniam
Total	Total	10	8	2		

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Animal Genetics and Breeding	1200	1200	<ul> <li>Kern Electronic Analytical</li> <li>Balance</li> <li>Gel rocker with electronic timer</li> <li>Real Time PCR</li> <li>Refrigerated Centrifuge</li> <li>Gel Doc</li> <li>Deep freezers (-20, -40 and -80°C)</li> </ul>

# 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available				
		PG Teacher	PG Guide			
1	AGB	2	1			

# 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

# Action taken by the college

# 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

# 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

# 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

Actual student admitted in last five years						At	trition (	%)					
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
-	-	1	1	-	2	-	-	-	-	-	-	-	-

# 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for the following course: PhD (Animal Genetics and Breeding)

Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# Ph.D. in Animal Husbandry Economics

# 6.4 Self Study Report for the Programme: Ph.D. (Animal Husbandry Economics)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

This department has been offering both Under Graduate and Post Graduate courses on animal husbandry economics. Under Graduate students of Veterinary Science are taught on concepts of economics and marketing of livestock and livestock products; pricing; farm business and financial management; project preparation and analysis. Various lecture notes, practical manual and question bank were prepared for under graduate courses every year. In Post Graduate courses have been offered on economic, concepts of micro and macro economics, farm production and business, livestock marketing, econometrics, policy framing, livestock project analysis and linear programming for finding the optimum profit and livestock credit. This department has handled research projects in all major fields of livestock and poultry production, marketing, disease losses, constraints identification, credit and rural development. Policy research outputs are mainly helpful for the policy makers, academicians and research scholars on various aspects of livestock, poultry and rural development. Economic losses were particularly estimated for bovine reproductive disorders and Foot and Mouth Disease. Similarly pioneering research on marketing of livestock and its produce were also carried out. A two days workshop on "Preparation of Model Bankable Projects for Livestock and Poultry Farms" was organized every year for the benefit of technical staff from our TANUVAS peripheral centres and One day workshop on "Cost and Benefit Calculation" was organized for various production subjects staffs of Veterinary College and Research Institute, Namakkal.

# **Objectives**

- ❖ To assess and monitor the development trends in livestock sector from producer to consumer (Supply chain of animal products)
- ❖ To conduct need based economic research on dairying, poultry farming, sheep and goat rearing and cost benefit analysis of disease prevention, control and eradication of diseases
- ❖ To evaluate likely social, animal and public health as well as environmental impacts and risk of these trends.
- Salient Achievements

#### I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total	
M.V.Sc	3	-	3	
Ph.D	1	-	1	

#### II. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	02	-	-	-	-
Ongoing	-	-	-	-	-	-	-	01	-
Total	-	-	-	-	02	-	-	01	-

#### Achievement of the Department during 2019-20

#### **Teaching**

- ❖ E learning course content developer for VAE 321 Livestock Economics, Marketing and Business Management (2+1)
- Under Graduate students of Veterinary Science are taught on concepts of economics and marketing of livestock and livestock products; pricing; farm business and financial management; project preparation and analysis.
- ❖ In Post Graduate courses have been offered on economic, concepts of micro and macro economics, farm production and business, livestock marketing, econometrics, policy framing, livestock project analysis and linear programming for finding the optimum profit and livestock credit.

#### Research

- ❖ Economic losses were particularly estimated for bovine reproductive disorders and Foot and Mouth Disease. Similarly pioneering research on marketing of livestock and its produce were also carried out.
- This department has handled research projects in all major fields of livestock and poultry production, marketing, disease losses, constraints identification, credit and rural development.

❖ Policy research outputs are mainly helpful for the policy makers, academicians and research scholars on various aspects of livestock, poultry and rural development.

#### **Extension**

❖ The department offers consultancy services to the livestock farmers for preparation of Livestock and poultry farm project reports

# **6.4.2 Faculty Strength**

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies			
1.	Professor	1	1	0	As per the VCI, the required			
2.	Associate Professor	1	1	0	staff strength is as follows:			
3.	Assistant Professor	2	2	0	Associate Professor : -			
	Total	4	4	0	Assistant Professor : - Total :-			

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

#### DEPARTMENT OF ANIMAL HUSBANDRY ECONOMICS

SI. No.	Name of the Post	Sanctioned strength	Staff in Position	No. of Vacancy		Name of the incumbent holding the post
1	Professor	1	1	0		Dr.D.Ananda Prakash Singh (Working as Prof. & Head at LFC)
2	Associate Professor	1	1	0		Dr.A.Raja, Professor (working as Professor & Head at Edu Cell)
3	Assistant Professor	2	2	0	1	Dr. V.Senthilkumar (Placed asAsst. Prof and Head)
					2	Dr.V.Boopathi (working at LFC)
	Total	4	4	-		

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Animal Husbandry Economics	600	-	-

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

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Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book

which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher PG Guide					
1	AHE	1	1				

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

# Action taken by the college

#### 1. Soft skill development

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# 2. Problem based learning

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# 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	%)			
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016- 2017- 2018- 2019- 2020- 2016 2017 2018 2019 2020 2021			2021- 2022			
-	-	-	-	-	-	-	-	-	-	-	-	-	-

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

#### 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for the following course: PhD (Animal Husbandry Economics)

Dr.M.Selvaraju, Ph.D.,
Dean
Veterinary College and Research
Institute, Namakkal 637 002.

# Ph.D. in Animal Nutrition

#### 6.4 Self Study Report for the Programme: Ph.D. (Animal Nutrition)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

## 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department was started in the year 1985, to offer undergraduate courses in Animal Nutrition. Post graduate courses were offered from the year 1994. In the year 2007, a separate feed manufacturing unit funded by ICAR was started under experiential learning programme for providing hands on training on various livestock feed preparation to the under graduate students and to cater the needs of livestock and poultry feed of the college, university centers and state government farms. Post graduate Diploma in Feed Manufacturing Technology course was offered from the year 2012. The Department also conducts skill development courses on "Feed Mill Plant Operation and Management" and "Concentrate Feed Preparation Techniques" for the farmers.

# **Objectives**

- ❖ Imparting education to undergraduate and postgraduate students and under taking research and extension.
- ❖ To improve nutrient utilization of alternative energy and protein sources.
- Evaluation of feed additives

#### **Salient Achievements**

#### I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	45	01	46
Ph.D	08	04	12
PGDFMT	18	1	19

#### II. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	4	-	-	-	-	-	-	3	-
Ongoing	1	-	-	-	-	2	-	-	-
Total	5	-	-	-	-	2	-	3	-

#### Seminar/Symposium/Training Programmes Organised

Title	Funding Aganay	Peri	Details		
Title	Funding Agency	From	То	Details	
Advances in climate resilient feeding strategies to augment the socio-economic status of Sheep / Goat farmers of Tamil Nadu	TNSCST	6.8.2019	8.8.2019	Workshop cum training	

#### Achievement of the Department during 2019-20

- Three day Workshop cum training on "Advances in climate resilient feeding strategies to augment the socio- economic status of Sheep/Goat farmers of Tamil Nadu" sponsored by TNSCST was conducted from 06.08.2019 to 08.08.2019.
- Aproject entitled, "Natal and neonatal dietary interventions to produce nutrient fortified-antibiotic residue free chicken meat" was sanctioned by TNSCST (Rs.4.30 lakhs)
- ❖ A project entitled, "Comparative evaluation of mulberry silkworm (*Bambyx mori*) and Non-mulberry silkworm- Eri (*Samia cynthia ricini*) pupae meals as an alternate protein source in the diet of broiler chicken" was sanctioned by Director Sericulture, salem (Rs.6.40 lakhs)
- The University has granted permission to establish "feed/fodder value addition unit" at a cost of lakhs.
- ❖ A guest lecture on, "Dairy cattle nutrition and feeding management Industry and field perspectives" was delivered by Dr.Gnanasekar, Managing Director, Truvet Animal Nutrition Limited, Bengaluru, to II year B.V.Sc., students on 29.07.2019

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies			
1.	Professor	1	1	0	As per the VCI, the require			
2.	Associate Professor	3	2	1	staff strength is as follows: Professor:			
3.	Assistant Professor	5	1	4	Associate Professor : -			
	Total	9	4	5	Assistant Professor : - Total : -			

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post
ANIM	IAL NUTRITION					
1	Professor	1	1	0		Dr.P.Vasanthakumar
2	Associate Professor	3	2	1	1	Dr.P. Vasan, Professor
					2	Dr.C.Kathirvelan
					3	Vacant
3	Assistant Professor	5	1	4	1	Dr.C.Nithya (Working at LFC)
					2	Vacant
					3	Vacant
					4	Vacant
					5	Vacant
4	Assistant	1	1	0		Tmt.S.Kanchana
5	Typist	1	0	1		Vacant
6	Agri.Assistant	2	2	0	1	Tmt.R.Kalaichelvi, Assistant
					2	Tmt.J.Indira Gandhi, Assistant
7	Attendant	1	0	1		Vacant
8	Senior Lab. Assistant	1	1	0		Th.P.Sengodan (Lab Asst)

9	Time Scale Mazdoor	1	0	1	Vacant
l	Total	16	8	8	

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Animal Nutrition	1800	1200	❖ Hot air oven
				<ul> <li>Muffle furnace</li> </ul>
				<ul> <li>Soxhlet apparatus</li> </ul>
				<ul> <li>Flame photometer</li> </ul>

# 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher	PG Guide				
1	ANN	2	3				

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

# 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

# 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

			tudent a st five y	dmitted ears			Attrition (%)						
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
-	-	2	2	-	1	1	-	-	-	-	-	-	-

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for the following course: PhD (Animal Nutrition)

Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# Ph.D. in Veterinary Gynaecology and Obstetrics

#### 6.4 Self Study Report for the Programme: Ph.D. (Veterinary Gynaecology and Obstetrics)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

## 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Gynaecology and Obstetrics was established as separate department on the year 1991 under Dr. J. Rajasekaran as first Head of the Department. Three Undergraduate courses are offered (Veterinary Gynaecology, Veterinary Obstetrics and Veterinary Andrology and Reproductive techniques). Since inception so far ten (both University and Externally funded) projects have been completed and there are six ongoing projects. Twelve M. V.Sc., and 10 Ph.D., theses were submitted and two students are doing M. V.Sc., degree.

#### **Objectives**

- ❖ To impart undergraduate and postgraduate education to the students of Veterinary College and Research Institute. Namakkal
- To provide artificial insemination service to the bovines at hospital Campus.
- To provide infertility treatments to all the farm and pet animals.
- To provide obstetrical emergency treatments to all the farm and pet animals.
- ❖ To offer farm advisory services for the benefits of the farming community by conducting and attending mass contact programmes.
- ❖ To impart training to the field veterinarians about the recent advances in the field of Animal Reproduction, Gynaecology and Obstetrics.
- ❖ To conduct basic and applied research in the Veterinary Obstetrics and Gynaecology.

# **Facilities Available in the Department**

Sl. No.	Name of the instrument/facility
1	Phase contrast research microscope
2	Sonoray DS50 Ultrasound Scanner
3	Vertical deep freezer -20°C
4	Shadow less lamp -LED
5	5 KVA Microteck online UPS
6	Colour Doppler Ultrasonography with accessories
7	Hydraulic operation table
8	Collapsible Chute
9	LCD Interactive projector
10	Laminar Air Flow
11	Education cam with LED
12	Computer Assisted Semen Analyzer (CASA)
13	Zoom Stereomicroscope - Nikon Trinocular
14	Distillation unit
15	Gel Documentation
16	Cryogenic storage container
17	Servo controlled stabilizer for LN plant
18	Liquid Nitrogen Plant
19	Programmable semen Freezer
20	Cold Handling Cabinet
21	Photoelectric calorimeter
22	Automatic straw filling and sealing machine
23	Water bath with stirrer
24	Semen storage container
25	Semen storage container
26	Electronic Weighing balance
27	Numeric HPL 10.0 KVA online UPS 240 VDC (MAITRI)
28	Equitron fully automated autoclave (75 lit) (MAITRI)
29	Digital incubator (150 lit) (MAITRI)
30	Camera with HDMI port and software for NIKON microscope (MAITRI)
31	Embryo Freezer
32	Ethylene Oxide Sterilizer

#### **Salient Achievements**

#### I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	12	4	16
Ph.D	10	-	10

#### II. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	2	-	3	-	2	-	-	-	3
Ongoing	-	-	-	-	1	-	-	3	4
Total	2	-	3	-	3	-	-	3	7

# Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding Agency	Per	riod	Type of event
Title	Funding Agency	From	То	Type of event
XXXV Annual Convention of the Indian Society for Study of Animal Reproduction (ISSAR) and International Symposium at Department of Veterinary Gynaecology and Obstetrics, Veterinary College and Research Institute, Namakkal – 637 002		18.12.19	20.12.19	International Symposium and Annual convention of the Indian Society for Study of Animal Reproduction (ISSAR)

# Achievement of the Department during 2019-20

- ❖ Frozen semen doses of 2,61,034 have been produced from buffalo and cattle bulls and 21,691doses were produced from bucks at Frozen Semen Bankfrom April 2019 to January 2020 and supplied to field for Artificial Insemination
- Production of frozen semen straws from Salem Black bucks were started from April 2019 and 3178 doses of frozen semen straws were produced till January 2020 of Super Napier Grass for an area of 25 cents has been done.
- Small Animal Reproductive Surgery Theatre have been established from April 2019
- ❖ NMBP ET TANUVAS Scheme on "Establishment of Embryo Production Centre for Conservation of Indigenous Breeds of Tamil Nadu" is being carried out at a budget outlay of 252.0 lakhs
- ❖ A scheme on "EFFECT OF INDIGENOUS MEDICINES IN THE TREATMENT OF ANESTRUS AND RETAINED FETAL MEMEBRANES IN BOVINES" funded by National Innovation Foundation −

India, Autonomous Body of Department of Science and Technology, Govt. of India is being obtained and carried out at a budget outlay of Rs. 11 Lakhs

Principal Investigator and Nodal Officer for "Advanced breeding technologies including assisted reproductive technique multiple ovulation and embryo transfer".

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	2	0	staff strength is as follows:
3.	Assistant Professor	2	1	1	Associate Professor : -
	Total	5	4	1	Assistant Professor : - Total : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post
VETE	RINARY GYNAECOLOGY ANI	OBS7	TETRI	CS		
1	Professor	1	1	0	1	Dr.M.Palanisamy
2	Associate Professor	2	2	0	1	Dr.K.Ravikuma
					2	Dr.D.Gopikrishnan, (AssistantProf)
3	Assistant Professor	2	1	1	1	Dr.K.Senthilkumar
					2	Vacant
4	Typist	1	0	1		Vacant
5	Attendant	1	1	0		Th.P.K.Arunagiri
1	Total	7	5	2		

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Gynaecology and Obstetrics	900 + 600	1000	Semen Bank for native breeds preservation.
	Obsteries			<ul> <li>Liquid nitrogen production unit</li> </ul>
				<ul> <li>Ultrasound scanners</li> </ul>

# 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available						
		PG Teacher	PG Guide					
1	VOG	4	2					

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

# Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

# 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

# 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

# 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	%)		
2015- 2016					2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	
_	2 2				-	-	-	-	-	-	-	

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary Gynaecology and Obstetrics)

Dr.M.Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# Ph.D. in Livestock Production Management

# 6.4 Self Study Report for the Programme: Ph.D. (Livestock Production Management)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

## **6.4.1** Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

This Department was started during the year 1985, with the objective of teaching the undergraduate students of B.V.Sc., the methods and techniques of livestock handling, feeding, housing, breeding and disease management. From 1994 onwards this Department stated M.V.Sc programme. In addition, this Department has the mandate of rearing farm animals for the purpose of teaching, research and extension activities.

#### **Objectives**

- ❖ Offering of UG, PG courses with updated information and carry out PG research based on farmers problems/issues
- **Second Second Proof** Establishment of value added manure management unit and water quality analysis laboratory
- Development of package of practices for sustainable livestock production in dry land agriculture

# **Facilities Available in the Department**

Sl. No.	Name of the instrument/facility								
1	Water quality analysis laboratory (qualitative examination of metallic and non -metallic impurities)								
2	Spectrophotometer								
3	Electrical conductivity /TDS meter								
4	Turbidity meter								
5	pH meter								
6	Weather recording facilities								
7	Wool demonstration facilities								
8	Shredder cum pulverizer								
9	Muffle furnace								

# **Salient Achievements**

# I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	25	-	25
Ph.D	8	4	12

# II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Ohers
Completed	-	-	2	1	-	1	-	-	1
Ongoing	1	1	-	-	-	-	-	1	-
Total	1	1	2	1	-	1	-	1	1

# Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding Agency	Period		Type of event
		From	То	
Present status, challenges and future scenario of pig farming in Tamil Nadu	TANUVAS	22.06.19	23.06.19	State level seminar

# Achievement of the Department during 2019-20

- ❖ A state level seminar and cum exhibition on "Present status, challenges and future scenario of pig farming in Tamil Nadu" on 22.06.19 and 23.06.2019 at SMS Mahal Coimbatore. In this seminar about 271 farmers all over from Tamil Nadu participated and get benefitted.
- ❖ In experiential learning programme on "commercial pig rearing" 30 students were imparted hands on training and reared 75 piglets up to market age and sold to progressive farmers. They earned a net profit of Rs. 2,12,482/- A sum of Rs. 1,59,360/- has been paid to the student as their profit share (75%).

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	0	2	staff strength is as follows:
3.	Assistant Professor	0	0	0	Professor : -
	Total	3	1	2	Associate Professor : -
					Assistant Professor : -  Total : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post
LIVE	STOCK PRODUCTION MAN	AGEM	ENT			
1	Professor	1	1	0		Dr.V.Ramesh
2	Associate Professor	2	0	2	1	Vacant
					2	Vacant
3	Technician	1	1	0		Th.J.Rajeshkumar
4	Attendant	1	1	0	1	Th.K.Subramaniam
1	Total	5	3	2		

GRAN	GRAMIN KRISHI MAUSAM SEWA									
1	Technical Officer	1	0	1	Vacant - (However Dr.S.Banupriya, Assistant Professor, Dept., of LPT (D.Sc)., is ordered to work as Technical officer in GKMS scheme, the cost of personnel shall be reimbursed from GKMS scheme)					
l	Total	1	0	1						

#### **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment		
1.	Livestock Production Management	1200	1000	· Electrical muffle furnace(1100°c)		

# 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- ❖ Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care

is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher	PG Guide				
1	LPM	3	1				

## 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

# Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

# 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr.AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

# 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

Actual student admitted in last five years							At	trition (	%)				
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
-	1	2	2	-	1	-	-	-	-	-	-	-	-

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- **5.** Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Livestock Production Management)

Dr.M.Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# Ph.D. in Livestock Products Technology

### 6.4 Self Study Report for the Programme: Ph.D. (Livestock Products Technology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of the respective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinary sciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, means first batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

#### **Department of Livestock Products Technology (Dairy Science)**

This department offers UG and PG education. A well equipped dairy plant is available. This department EL programme to the UG students. Paid training programmes are offered for the entrepreneurs. Inplant training is offered for other college students.

### **Objectives**

- To undertake teaching in the field of dairy science
- \* To conduct research on need based field and industry oriented problems.
- To disseminate research findings to the dairy farmers, entrepreneurs and women self-help groups by conducting training programmes

#### **Facilities Available in the Department**

Sl. No.	Name of the instrument/facility
1.	Milk analyzer
2.	Food Texture Analyzer
3.	Blast Freezer
4.	Glass spray dryer
5.	Bulk Milk Cooler

6.	Ice cream unit with accessories			
7.	Modular Deep freezer walk in room			
8.	Modular Chiller walk in room			
9.	Khoa section			
10.	Milk packing, Ghee and Butter section			
11.	Glass spray dryer			

#### **Salient Achievements**

#### I. Education

#### Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	13	-	13
Ph.D	8	1	9

#### II. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	1	-	1	-	-	1	1	1	-
Ongoing	1	-	-	-	-	-	-	1	-
Total	2	-	1	-	-	1	1	2	-

# Achievement of the Department during 2019-20

❖ A Combined cream separator cum butter churn was developed

#### **Department of Livestock Products Technology (Meat Science)**

The Department of Meat Science and Technology was established on 14.6.1985 at VC&RI, Namakkal with a main objective of disseminating knowledge about hygienic slaughter and dressing of food animals, utilization of slaughterhouse by-products, meat borne illnesses and preparation of value added meat products to undergraduate students of B.V.Sc course. Over the years new facilities were added and during the year 2000 the department moved to a separate building constructed under the Part-II Scheme with a model slaughterhouse with overhead rail system. A carcass and by-products utilization centre has been established under Centrally Sponsored Scheme with Central Share of Rs.1.18 Crores and the State Government's Share of Rs. 21.79 lakhs during the year 2005. Now the department is having all basic facilities for hygienic slaughter and dressing of foods animals, pet food processing, preparation of ready to eat meat products and utilisation of slaughter house by- products. With ICAR funding a Under graduate Laboratory & Meat processing laboratory has been established during 2013.

### **Objectives**

- ❖ Teaching under-graduate and post-graduate courses in the discipline of Meat Science and Technology.
- Conducting research in the area of meat science, processed meat products and by-products utilization.
- To motivate farmers, entrepreneurs and unemployed youth to establish their own meat based enterprises.
- To transmit the scientific knowledge to the farmers through radio talk, TV talk and booklets.
- To produce wholesome meat and to popularize various value-added meat products.
- To develop value added meat products from spent hen meat

## **Facilities Available in the Department**

- ❖ Model slaughterhouse with overhead rail system
- Carcass and by-products utilization center
- Semi-automatic pig slaughter line
- Analytical Lab
- Product processing hall and Sensory evaluation lab
- Meat microbiology lab
- Pet food processing unit
- Carcass and by products utilization centre
- \* Retail sale counter at clinical campus

#### **Salient Achievements**

#### I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	12	2	14
Ph.D	7	4	11

#### II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	1	-	-	-	-	-	-		2
Ongoing	-	-	-	-	-	-	-	1	2
Total	1	-	-	-	-	-	-	1	4

### Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Eunding Agency	Per	Type of event	
Title	Funding Agency	From	То	Type of event
One day awareness programme on "Organic Livestock Production"	Agricultural and Processed Food Products Export Development Authority (APEDA), Ministry of Commerce and Industry, Govt. of India.	29.01.2020	29.01.2020	Awareness programme (others)
One day training programme on "preparation on value added meat products"	Dept. funds	20.05.2019	20.05.2019	Training
One day training programme on "preparation on value added meat products"	Dept. funds	12.07.2019	12.07.2019	Training

### Achievement of the Department during 2019-20

- Good progress in sale of meat and meat products.
- Good progress in sale of pet food.
- ❖ Conductedone day APEDA funded awareness programme on "Organic Livestock Production" on 29.01.2020

### 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	2	2	0	As per the VCI, the required
2.	Associate Professor	3	3	0	staff strength is as follows: Professor:
3.	Assistant Professor	6	6	0	Associate Professor : -
	Total	11	11	0	Assistant Professor : - <b>Total</b> : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post				
LIVES	LIVESTOCK PRODUCTS TECH NOLOGY (DAIRYSCIENCE)									
1	Professor	1	1	0		Dr.G.Kumaresan				
2	Associate Professor	1	1	0		Dr.C.Pandiyan, Professor				
3	Assistant Professor	3	3	0	1	Dr.N.Karthikeyan				
					2	Dr.A.Poorani				
					3	Dr.S.Banupriya				
4	Junior Assistant	1	0	1		Vacant				
5	Attender	2	2	0	1	Th.K.Selvam				
					2	Tmt.R.Pugalarasi				
6	Attendant	2	1	1	1	Th.L.Duraisamy				
					2	Vacant				
	Total	10	8	2						
LIVES	TOCK PRODUCTS TECHNO	LOGY	(MEAT	SCIE	NCE)					
1	Professor	1	1	0		Dr.S.Suresh Kumar, Asso. Prof.				
2	Associate Professor	2	2	0	1	Dr.V.Chandirasekaran, Asst Prof				
					2	Dr.R.Rajkumar, Asst. prof				
3	Assistant Professor	3	3	0	1	Dr.P.Sivakumar				
					2	Dr.M.Muthulakshmi				
					3	Dr.A.Punnagaiarasi				
4	Assistant	1	1	0		Th.B.Ponnusamy				
5	Attender	1	1	0		Th.S.Ravi				
6	Attendant	1	1	0		Th. P. Varadaraj				
7	Boiler Man - Gr.II	1	0	1		Vacant				
8	Master Flayer	1	1	0		Tmt.R.Savithri, Pro.Mazdoor				
	Total	11	10	1						

### **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Livestock Products Technology (Dairy Science)	1200	2000	❖ Milk processing equipment with a capacity of 300 LPH
2.	Livestock Products Technology (Meat Science)	1200	<ul> <li>Slaughter Hall: 3900</li> <li>Carcass</li></ul>	<ul> <li>Sausage Stuffer</li> <li>Vacuum Tumbler Model F 25x</li> <li>Tissue Homogenizer-1</li> <li>Bacteriological Incubator</li> <li>Modular freezing unit</li> <li>Deep freezers</li> <li>Electronic Weighing Balance-500kg</li> </ul>

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available				
		PG Teacher	PG Guide			
1	LPT (DSC)	2	2			
2	LPT (MST)	2	-			

## 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feed back received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years						At	trition (	%)				
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
1	-	3	4	-	-	1	-	-	-	-	-	-	-

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- 6. Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Livestock Product Technology)

Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# Ph.D. in Poultry Science

#### 6.4 Self Study Report for the Programme: Ph.D. (Poultry Science)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

This department is offering U.G and P.G courses, P.G diploma courses. Centre of Advanced Faculty Training centre for training faculties all over the country. Maintenance of different species of poultry for U.G education and P.G research. Selling day old chicks to the needy farmers.

#### **Objectives**

- Offering courses to U.G and P.G students
- ❖ 21 days training programme to the faculties in CAFT in Avian sciences
- Sale of day old chicks to needy farmers

#### **Facilities available**

Eggshell force gauge with down voltage transformer	To measure eggshell force
Automatic egg incubator	
Modern incubator	
Bomb calorimeter	To measure metabolizable energy value of feed and feed ingredients
Egg multi-tester	To measure all internal characteristics of egg

Meat mincer	To mince the meat for preparation of meat products
Soxtec system	To calculate ether extract of crude fibre and crude protein
Fluroremeter (Mycotoxin Analyser)	To estimate mycotoxin level in the feed
Fibretec system	To measure crude fibre value of feed and feed ingredients
Kjeltec system	To measure crude protein value of feed and feed ingredients
Cooling centrifuge	Poultry genetic Molecular study
Agar gel electrophoresis	Poultry genetic Molecular study

#### **Salient Achievements**

# I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	69	5	74
Ph.D	13	5	18

# II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	-	5	-	5	9
Ongoing	-	-	-	2	-	-	-	-	1
Total	-	-	-	2	-	5	-	5	10

# Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding Agency	Per	Type of ayout		
Title	Funding Agency	From	To	Type of event	
Practical knowledge sharing on nutrition and value addition in commercial poultry	ICAR	06.11.2019	26.11.2019	21 days training programme	
Integrated approach on climate, biosecurity and health management in commercial poultry farming	ICAR	29.01.2020	18.02.2020	21 days training programme	

# Achievement of the Department during 2019-20

- ❖ Supply of 3500 4000 day old Japanese quail chicks every week to the needy farmers.
- ❖ Supply of 250 − 300 day old crossbred chicks, turkey poult and fancy chicks every week to the needy farmers.

❖ 199820 Japanese quail chicks, 81 Turkey poults, 8047 Cross bred chickes, 5179 Desi fowl chickes and 34 Guinea fowl keets were sold to farmers and generated a revenue of Rs. 6,86,846/-

# **6.4.2 Faculty Strength**

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	1	1	0	staff strength is as follows: Professor:
3.	Assistant Professor	3	3	0	Associate Professor : -
	Total	5	5	0	Assistant Professor : - Total : -

#### 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post
POUL	TRY SCIENCE					
1	Professor	1	1	0		Dr.M.Moorthy
2	Associate Professor	1	1	0		Dr.R.Amutha, Professor
3	Assistant Professor	3	3	0	1	Dr.D.Kannan, Professor
					2	Dr.K.Rajendran
					3	Dr.V.Kannan
4	Laboratory Technician	1	1	0		Th.L.Sundaram
5	Attender	1	1	0		Th.K.Pandian
6	Attendant	4	4	0	1	Tmt. S.Akhilandeswari
					2	Th.V.Latchathipathi
					3	Tmt.S.Malarkodi, Basic Servant
					4	Tmt.T.Dhanalakshmi, Basic Servant

7	Time Scale Mazdoor	1	1	0	Tmt.D.Jeyagowri, Prov. Unskilled Mazdoor
	Total	12	12	0	

#### **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Poultry Science	1200	<ul> <li>Poultry shedcapacity</li> <li>Layer 5000 birds</li> <li>Broiler – deeplitter -500</li> <li>Broiler – Environmental house – 500</li> </ul>	<ul> <li>Molecular biology         <ul> <li>lab instruments like</li> <li>PCR and other items</li> </ul> </li> <li>Poultry feed analysis         <ul> <li>instruments</li> </ul> </li> </ul>
			<ul> <li>Alternate poultry – 400birds</li> <li>Japanese Quail – 3000</li> <li>Ostrich – 2 acres</li> <li>Hatchery - 10,000 chickeneggs</li> <li>Hatchery 2 –30,000 quaileggs</li> </ul>	

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available								
		PG Teacher	PG Guide							
1	PSC	2	2							

# 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feed back received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

# Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years						At	trition (	%)		
2015- 2016					2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
1	1 - 4 3 1				-	-	25	-	-	-	-

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- 6. Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. - Yes

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Poultry Science)

Dr.M.Selvaraju, Ph.D.,

Dean

Veterinary College and Research Institute, Namakkal 637 002.

# Ph.D. in Veterinary Anatomy

#### 6.4 Self Study Report for the Programme: Ph.D. (Veterinary Anatomy)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

#### **Objectives**

- ❖ To impart quality education on Veterinary Anatomy to Under Graduate, Post Graduate and Doctoral degree program
- To undertake research projects on Veterinary Anatomy, Histology, Histochemistry and Embryology

#### **Facilities Available in the Department**

Sl. No	Name of the instrument	Utility
1.	Leica Microtome	Tissue sectioning for histological research
2.	Leica Trinocular microscope with image analyzer	To acquire photomicrograph and for taking measurements of histological slides
3	CETI trinocular microscope with camera	For demonstration of Histology slides to undergraduate students during practical classes for better understanding.

#### **Salient Achievements**

#### I. Education

Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	8	-	8
Ph.D	2	3	5

### 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	1	1	staff strength is as follows:
3.	Assistant Professor	3	2	1	Associate Professor: -
	Total	6	4	2	Assistant Professor: - Total: -

### 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post
VETER	RINARY ANATOMY					
1	Professor	1	1	0		Dr. K.Balasundaram
2	Associate Professor	2	1	1	1	Dr. S.Jayachitra, Asst. Prof.
					2	Vacant
3	Assistant Professor	3	2	1	1	Dr.N.Bharathy
					2	Dr.P.Dharani
					3	Vacant
4	Livestock Inspector Gr.II	1	1	0		Tmt.C.Vijayalakshmi, Attendant

5	Attender	1	1	0	Th.C.Ayyamuthu
	Total	8	6	2	

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	VeterinaryAnatomy	Lab -1220 Lab-		❖ Histobath
		21800	400	❖ Histotap (Leica)
				<ul> <li>Leica DM 100 trinocular microscope with DFC 290 Digital Camera and LAS software</li> <li>Leica microtome with</li> <li>accessories</li> </ul>

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- ❖ Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory

committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

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Sl.No.	Name of the Discipline	No. of recognized teachers available								
		PG Teacher	PG Guide							
1	VAN	1	-							

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

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After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

### 6.4.8. Student intake and attrition in the programme for last five years

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2015- 2016					2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
-	1 1 1				-	-	-	-	-	-	-

## 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary Anatomy)

Dr.M.Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# Ph.D. in Veterinary and Animal Husbandry Extension Education

#### 6.4 Self Study Report for the Programme: Ph.D. (Veterinary & Animal Husbandry Extension Education)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented as per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

Department of Veterinary and Animal Husbandry Extension Education is mainly involved in undertaking teaching, research and extension activities. This department serves as a notable link between the college and farming community through organizing various extension activities. This department also undertakes skill development and self employment training for the unemployed youths and farmers. In addition, queries raised by the farmers are answered directly by office calls, telephone calls and also through advisory letters. Guided visits are conducted regularly to livestock, poultry, and agronomy farms to provide exposure to famers, farmwomen and visitors on various technologies practiced in the farms. Training programmes are organized to impart knowledge and skills to the farmers and farm women of ATMA scheme, entrepreneurs, extension personnel, unemployed Veterinarians and TNPSC aspirants. It is also involved in arrangement of functions, press meet, mass contact programmes, Farm Radio School, radio talk, photo and video coverage.

#### **Objectives**

- Teaching Undergraduate and Postgraduate education
- Conducting need based research
- To transmit scientific knowledge to farmers by way of organizing various extension activities

#### Salient Achievements

#### I. Education

#### Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	12	1	13
Ph.D	11	3	14

#### II. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	2	1	-	1	-	1	-	3	5
Ongoing			-		-		-	1	
Total	2	1	-	1	-	1	-	4	5

### Achievement of the Department during 2019-20

- ❖ District level forum committee meeting along with the Regional Joint Director, Department of Animal Husbandry; General Manager, Aavin for joint action to come up with the solutions for field problems at Veterinary College and Research Institute, Namakkal on 5.9.2019, 14.10.2019, 13.11.2019, 12.12.2019 & 24.1.2020
- ❖ Technical meeting for Veterinary Assistant Surgeons of Namakkal district on Functioning of VERU for Disaster management, Downer cow management, Treatment of mastitis and facilities available for testing of mastitis, Analysis of clinical samples (Screening of blood samples) received from private veterinary practitioners at CCL, VC&RI, Namakkal was organised at Veterinary College and Research Institute, Namakkal on 24.12.2019
- ❖ Interaction meet with officials of Animal Husbandry department of Salem, Namakkal and Erode regarding conduct of Buyer Seller Meet cum workshop was held at Veterinary College and Research Institute, Namakkal on 29.10.2019.
- ❖ Interaction meet with 42 senior officials of NABARD regarding the latest developments in livestock sector and intervention of NABARD at field level at Veterinary College and Research Institute, Namakkal on 17.9.2019.
- ❖ TNPSC Coaching class for the veterinary graduates of Tamil Nadu from 27.01.2020 to 14.2.2020.

#### 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	1	1	0	staff strength is as follows: Professor:
3.	Assistant Professor	4	3	1	Associate Professor : -
	Total	6	5	1	Assistant Professor : - Total : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post
VETER	RINARYANIMAL HUSBANDI	RY EXT	ENSIO	N EDU	J <b>CAT</b> ]	ION
1	Professor	1	1	0		Dr.N.Narmatha
2	Associate Professor	1	1	0		Dr.V.Uma Asst. prof
3	Assistant Professor	4	3	1	1	Dr. K.M.Sakthivel Asso. Prof
					2	Dr.S.Karthikeyan
					3	Dr.P.Ponnusamy (Working atVety. Microbiology)
					4	Vacant
4	Typist	1	0	1		Vacant
5	Attendant	1	1	0		Th.R.Sankar
6	Photo-grapher Gr.III	1	1	0		Th.N.Suresh
	Total	9	7	2		

### **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary and AnimalHusbandry Extension Education	800	513	· Video editing station

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- ❖ Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available						
		PG Teacher PG Guide						
1	VAE	3	1					

# 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

# 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years						At	trition (	%)				
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
-	-	2	2	-	-	-	-	-	-	-	-	-	-

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

#### 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary and Animal Husbandry Extension Education)

Veterinary College and Research Institute, Namakkal 637 002.

100001

# Ph.D. in Veterinary Clinical Medicine

#### 6.4 Self Study Report for the Programme: Ph.D. (Veterinary Clinical Medicine)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

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During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Clinical Medicine was started in the year 1985 to teach Veterinary Clinical Medicine to the under graduate students. Post graduate degree (M.V.Sc.) and Ph.D. degree programmes are being offered from 2006 and 2008 respectively.

#### **Objectives**

- ❖ To impart UG and PG education
- Treatment of sick animals and disease diagnosis at Veterinary College Hospital using special diagnostic aids
- Disease investigation in field during outbreak
- Extension activities
- ❖ Farm advisory service and conducting training programs for the field

Name of the instrument/facility
Colour Doppler Ultrasonography for Large and Small animals
Electrocardiography
Endoscopy for Ruminants, dogs and Horses
Doppler Blood Pressure
12- lead ECG
Oxygen generator
Infusion pump

# **Facilities Available in the Department**

# **Salient Achievements**

# I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	9	3	12
Ph.D	6	-	6
PG Diploma	5	4	9

# II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	-	-	-	1	4
Ongoing	-	-	-	-	-	-	-	4	
Total	-	-	-	-	-	-	-	5	4

# Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding	Peri	Type of avent		
Title	Agency	From	To	Type of event	
Oral rhydration and intravenous fluid therapy in large animal practice	Self - 50	12.04.2019	Workshop	Oral rhydration and intravenous fluid therapy in large animal practice	
Oral rhydration and intravenous fluid therapy in large animal practice	Self - 50	31.05.2019	Workshop	Oral rhydration and intravenous fluid therapy in large animal practice	

Current concepts in small animal Cardiology	Self -11	01.06.2019 to 03.06.2019	Training	Current concepts in small animal Cardiology
Current concepts in small animal Cardiology	Self - 9	19.07.2019 to 21.07.2019	Training	Current concepts in small animal Cardiology
Current concepts in the diagnosis and management of acute abdomen of cattle and Ileus in cattle	Self - 50	05.07.2019	Workshop	Current concepts in the diagnosis and management of acute abdomen of cattle and Ileus in cattle
Recent advances in clinical diagnostic techniques and ultrasound imaging in cattle	Self - 35	26.07.2019	Workshop	Recent advances in clinical diagnostic techniques and ultrasound imaging in cattle
Management of Downer cow syndrome in cattle	Self - 44	30.09.2019	Workshop	Management of Downer cow syndrome in cattle
Basic in ultrasound imaging techniques in large animal practice	Self - 11	25.11.2019 to 28.11.2019	Training	Basic in ultrasound imaging techniques in large animal practice
Clinical Laboratory techniques and its interpretation in veterinary Practice	Self - 11	13.12.2019	Workshop	Clinical Laboratory techniques and its interpretation in veterinary Practice
Clinical diagnosis and management of cardiac diseases in dogs	Self - 9	26.02.2020	Workshop	Clinical diagnosis and management of cardiac diseases in dogs

#### Achievement of the Department during 2019-20

- ❖ Management of Downer cow syndrome in cattle has been standardized.
- ❖ Diagnosis and clinical Management of functional ileus in cow using prokinetic drugs has been standardized.
- \* Treatment of moderate rumen lactic acidosis in goat using Musa spp. flower has been standardized.
- ❖ Ten Continuing veterinary education program to the practicing veterinarian on various topic including management of downer cow syndrome, fluid therapy in large animals, ultrasound diagnosis of diseases in large animals, small animal cardiology, clinico-pathological diagnosis of diseases etc

#### 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	0	1	As per the VCI, the required
2.	Associate Professor	1	1	0	staff strength is as follows:
3.	Assistant Professor	3	3	0	Associate Professor : -
	Total	5	4	1	Assistant Professor : - Total :-

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

S. No.	Name of the Post	Sanctioned strength	Staff in Postion	No of Vacancy		Name of the incumbent holding the post
VETE	RINARY CLINICALMEDICINE					
1	Professor	1	0	1		Vacant
2	Associate Professor	1	1	0		Dr.E.Venkatesakumar (placed as Assistant Professor &Head)
3	Assistant Professor	3	3	0	1	Dr.R.Ravi
					2	Dr.K.Mohanambal
					3	Dr.K.Sasikala
4	Assistant	1	1	0		Tmt. V.Vijaya
5	Attendant	1	0	1		Vacant
	Total	7	5	2		

#### **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet		Major equipment
1.	Veterinary Clinical Medicine	500	500	*	Major equipment is kept in clinical complex
	Cimical ivications			*	Ultrasound machines
				*	Dialysis unit
				*	Endoscopy unit etc

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher PG Guide					
1	VCM	3	1				

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

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#### Action taken by the college

#### 1. Soft skill development

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#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

# 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

Actual student admitted in last five years						At	trition (	%)					
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
1	1	1	0	2	2	-	-	-	100	-	-	-	-

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- 6. Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

#### 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary Clinical Medicine)

Dr.M.Selvaraju, Ph.D.,

Dean

Veterinary College and Research
Institute, Namakkal 637 002.

# Ph.D. in Veterinary Microbiology

#### 6.4 Self Study Report for the Programme: Ph.D. (Veterinary Microbiology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implementedas per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

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During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Microbiology was started in the year 1985 to teach Veterinary Microbiology to the under graduate students. Post graduate degree (M.V.Sc) and Doctoral program (Ph.D) are being offered from 1994 and 1996 respectively. The department has got state of the art facilities for conduct of advanced research in veterinary microbiology and biotechnology and infrastructure for the diagnosis of livestock and poultry diseases. The Centralized Research Laboratory is also part of this Department endowed with advanced laboratory equipment under one roof to cater the need of Post graduate students and faculties of this institute.

#### **Objectives**

- ❖ To offer courses for under-graduate, post-graduate and doctoral students
- To provide laboratory facilities and guidance for post- graduate and doctoral students
- Molecular characterization of etiological agents causing respiratory diseases of layers
- ❖ To link industry and institute in order to conduct need based research
- To examine various clinical samples for diagnosis of diseases and to offer advice on their control and prevention
- To impart training to field veterinarians on recent advances in microbiology

# **Facilities Available in the Department**

Sl. No.	Name of the instrument/facility
1.	Ultra centrifuge
2.	Real time PCR machine
3.	Gradient PCR Machine
4.	Nano Drop Spectrophotometer
5.	Gel documentation system
6.	CO2 Incubator
7.	Biosafety Cabinet Class II
8.	Inverted Microscope
9.	-86 <sup>0</sup> C Deep freezer
10.	ELISA reader with automated washer
11.	Freeze dryer
12.	UV-Vis spectrophotometer
13.	Digital balance
14.	Complete electrophoresis system
15	AXIOPLAN High Resolution Microscope
16	Laminar air flow

# **Salient Achievements**

# I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	41	-	41
Ph.D	14	3	17

# II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	1	1	-	14	-	-	2
Ongoing	-	-		1	-		-	1	1
Total	-	-	1	2	-	14	-	1	3

#### Seminar/Symposium/Training Programmes Organised/Ongoing

T:41.	E. dina A annon	Pe	Period			
Title	Funding Agency	From	То	Type of event		
Avian influenza- its preparedness and control	ASCAD	18.06.2019	18.06.2019	Training program for paravets		
Awareness program on "Poultry Biosecurity"	State funded scheme run by Central University Laboratory, TANUVAS	28.01.2020	28.01.2020	Awareness program		
Molecular Diagnosis of Poultry Disease	Kemin Industries	17.02.2020	21.02.2020	Workshop		
Molecular and Serological Techniques" was conducted for 15 UG students of MVC and VC&RI, Namakkal	NAHEP-ICAR &IDP -TANUVAS	21.11.2019	23.11.2019	Training program		
"Animal Tissue culture" conducted for 30 students from RVS college of Arts and Science, Sulur, Coimbatore	Self	26.09.2019.	26.09.2019.	Hands on Training		

#### Achievement of the Department during 2019-20

- \* Released a monograph comprising Post graduate research findings of the Department
- ❖ 'Incidence of disease in correlation with weather data from the year 2010-2019' pertaining to Department of Veterinary Microbiology, VCRI, Namakkal was published.
- \* Roof provision was created in front of Avian Molecular Laboratory to avoid entry of rain water in to the laboratory.
- ❖ Introduced proper Biomedical waste disposal system in Centralized research laboratory and Avian molecular laboratory.
- Standardized antemortem diagnosis of Rabies virus in saliva sample by PCR
- ❖ Investigated the parvo viral infection in dogs and the molecular characterization revealed that the Parvo virus belongs to CPV 2b.

#### 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	2	0	staff strength is as follows: Professor:
3.	Assistant Professor	2	1	1	Associate Professor : -
	Total	5	4	1	Assistant Professor : - Total : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Name of the incumbent holding thepost	
VET	ERINARY MICROBIOLOGY					
1	Professor	1	1	0		Dr.K.Sukumar
2	Associate Professor	2	2	0	1	Dr.A.Thangavelu, (Professor and Head)
					2	Dr.P.Suresh Asst. prof.
3	Assistant Professor	2	1	1	1	Dr.S.Saravanan, Professor
					2	Vacant
4	Technician Gr.II	1	1	0		Th.P.Sundaram, Attender
5	Attendant	1	0	1		Vacant
	Total	7	5	2		

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab withDimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary	Lab- 1200	Controlised	<ul> <li>Ultracentrifuge</li> </ul>
	Microbiology	Lab 2 – 600 Poultry disease	Centralised research Lab-1200	❖ RT-PCR
		surveillancelab- 1200		❖ Gradient PCR
				❖ Nano-drop
				❖ Gel-doc
				❖ Deep Freezer

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book

which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher	PG Guide				
1	VMC	3	2				

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A. Feed back from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

# Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years						At	trition (	%)				
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
1	-	1	1	2	1	1	-	-	-	-	-	-	-

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary Microbiology)

Dr.M.Selvaraju, Ph.D.,

Dean

Veterinary College and Research Institute, Namakkal 637 002.

# Ph.D. in Veterinary Parasitology

#### 6.4 Self Study Report for the Programme: Ph.D. (Veterinary Parasitology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented as per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

#### 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Parasitology at VCRI, Namakkal was established in the year 1985. The staff positions are two Professors, three Assistant Professors and one technician. The department offers undergraduate and postgraduate courses in Veterinary Parasitology. Undergraduate courses are offered in the third year of B.V.Sc., following the pattern stipulated in MSVE' 2016. During 1993, this department was recognized as a post graduate department for the award of M.V.Sc. degree and in 2006, this department started offering Ph.D., degree courses.

#### **Objectives**

- ❖ To fulfil the curriculum needs of UG and PG courses.
- ❖ To undertake external funded/ private agency sponsored/ self financing research projects on parasitic diseases
- Screening of clinical samples received from Veterinary Hospitals and Veterinary University and Training Centres for parasitic detection.
- To advise farmers on the importance of parasitic infections and the methods to be adopted for effective control of the same.

#### **Facilities Available in the Department**

Sl. No.	Name of the instrument/facility
1	Inverted phase contrast microscope
2	QBC Paralens
3	BOD incubator
4	Microcentrifuge (Remi)
5	Laminar flow (Klenz flow)
6	Gel doc system (Biorad)
7	Gel electrophoresis system (Biorad)
8	Refrigerated Microcentrifuge (Eppendorf)
9	Deep freezer ( New Brunswick)
10	Master cycler gradient (Eppendorf)
11	Microscope with image capturing (Carl Zeiss)
12	Experimental animal shed

#### **Salient Achievements**

#### I. Education

### Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	17	-	17
Ph.D	9	2	11

#### II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	2	-	1	1	-	-	-	09
Ongoing	-	-	-	-	-	-	-	-	-
Total	-	2	-	1	1	-	-	-	09

# Achievement of the Department during 2019-20

- Offered UG,PG and Ph.D., courses
- Contributed for the development of e-course on Veterinary Parasitology
- ❖ Two M.V.Sc., students successfully completed their course
- ❖ A total number of samples examined: 1223 and notable diseases are *Parascaris equorum, psoroptes cuniculi, Setaria sp and Ascaris suum* Handled classes for UG students of Chattogram
- ❖ Veterinary and Animal Sciences ersity, University, Bangladesh from 19.06.2019 to 20.06.2019

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	0	0	0	As per the VCI, the required
2.	Associate Professor	3	3	0	staff strength is as follows:
3.	Assistant Professor	4	3	1	Associate Professor : -
	Total	7	6	1	Assistant Professor : - Total : -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

#### VETERINARY COLLEGE AND RESEARCH INSTITUTE, NAMAKKAL

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Na	ame of the incumbent holding thepost
VET	ERINARY PARASITOLOGY					
1	Associate Professor	3	3	0	1	Dr.G.Ponnudurai Prof. & Head
					2	Dr.K.Arunachalam, Professor
					3	Dr.K.Thangavel (Asst. prof ) work at Dept. of Microbiology
2	Assistant Professor	4	3	1	1	Dr.N.Rani, (Asso. Prof)
					2	Dr. P.Anbarasi
					3	Dr.K.Dhandapani
					4	Vacant
3	Junior Assistant	1	0	1		Vacant
4	Technician Gr.II	2	1	1	1	Th.V.Thangavelu, Attender
					2	Vacant
5	Attendant	1	0	1	1	Vacant
	Total	11	7	4		

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Parasitology	1269	912	<ul> <li>Ultrasonic Homogeniser         Labsonic-U</li> <li>All Quartz Double Distillation         Apparatus</li> <li>Leitz Laborluxs Binocular         Research with Photomicrography         microscope</li> </ul>
				❖ Laminar Air Flow (Klenzaids)

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- ❖ Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized tea	chers available			
		PG Teacher PG Guide				
1	VPA	3	1			

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	%)			
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
-	1 1 1					-	-	-	-	-	-	-	

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary Parasitology)

Selvaraju, Ph.D.,

Dean

Veterinary College and Research Institute, Namakkal 637 002.

# Ph.D. in Veterinary Pathology

#### 6.4 Self Study Report for the Programme: Ph.D. (Veterinary Pathology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# **6.4.1 Brief History of the Degree Programme**

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

#### **Objectives**

- ❖ Offering U.G. courses for B.V.Sc., students and P.G. course for M.V.Sc. and Ph.D., students.
- Providing laboratory facilities and guidance to M.V.Sc., and Ph.D., students.
- \* Conducting post mortem examination on Livestock and Poultry for academic and diagnostic purposes.
- Screening the clinical materials and histopathological sections to aid in confirmation of diseases

# **Facilities Available in the Department**

Name of the instrument	Utility
Leica microtome 2035	Histopathology
Leica Microtome 2125	Histopathology
Microscope Leica with Digital camera DM 1000	Screening slides and capturing images
Autoanalyzer with standard accessories	Serum biochemical parameters analysis
Vet scan HM Hematology system	Haematology parameters analysis
Deep Freezer -80° C (Haier Medical)	Preservation of tissue, serum, plasma and swabs
Analytical balance - Sartorius	Weighing chemicals and drugs

#### **Salient Achievements**

#### I. Education

#### Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	36	2	38
Ph.D	7	3	10

#### II. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	-	3	-	-	-
Ongoing	-	-	-	-	-	-	-	1	-
Total	-	-	-	-	-	3	-	1	-

#### Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Eunding Agency	Perio	Type of event	
Title	Funding Agency	From	То	Type of event
Training Programme	Training programme on "Necropsy examination and diagnosis of poultry diseases" for 10 veterinarians from M/s Suguna Foods Pvt. Ltd.,	M/s Suguna Foods Pvt. Ltd.,	26.03.2019- 28.03.2019	Training Programme
Training Programme	Model training course (MTC): Field based disease diagnostic techniques in animal husbandry for improving animal health status"	Ministry of Agriculture and Farmer's Welfare, GOI, New Delhi	19.02.2020- 26.02.2020	Training Programme

#### Achievement of the Department during 2019-20

- \* Postmortem diagnosis of various disease in livestock poultry and wild animals are being done
- \* Histopathological examinations are being offered for various disease conditions in VCRI hospital campus.
- ❖ E-course on "VPP 321 Avian Pathology" was created
- \* Colour atlases on "PM observations on Livestock and Poultry and Animal Tumours" were prepared
- \* Research works on various mycotoxicoses were extensively studied in poultry
- \* Research on various emerging and re-emerging diseases in poultry was carried out
- ❖ Advanced molecular pathology works on economically important viral and bacterial disease were carried out
- Molecular characterization of common animal neoplasm was done

#### 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies	
1.	Professor	1	1	0	As per the VCI, the required staff strength is as follows: Professor:- Associate Professor:- Assistant Professor:- Total:-	
2.	Associate Professor	2	1	1		
3.	Assistant Professor	3	3	0		
	Total	6	5	1		

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Name of the incumbent holding thepost			
VET	VETERINARY PATHOLOGY							
1	Professor	1	1	0		Dr.G.A.Balasubramaniam		
2	Associate Professor	2	1	1	1	Dr.P.Srinivasan, Professor		
					2	Vacant		
3	Assistant Professor	3	3	0	1	Dr.P.Balachandran, Prof		
					2	Dr.R.Madheswaran		
					3	Dr.M.Sasikala		
4	Assistant	1	1	0		Tmt.S.Vadivukkarasi		
5	Attender	1	1	0		Th.S.Chandrasekaran		
6	Attendant	1	1	0		Th.M.Kathirselvan		
7	Animal Attendant	1	1	0		Th.V.Arumugam, Attendant		
	Total	10	9	1				

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Pathology	1050	300	Microtome 2035
			(histopathology)	<ul> <li>Histotap plus</li> </ul>
				Histoblock
				Nikon trinocular Microscope E200
				<ul><li>Auto analyser with accessories</li></ul>

# 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher	PG Guide				
1	VPP	2	2				

# 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

# 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

# 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

# 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	%)			
2015- 2016					2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022		
1	-	1	1	3	1	1	-	-	-	-	-	-	-

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary Pathology)

Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# Ph.D. in Veterinary Pharmacology and Toxicology

# 6.4 Self Study Report for the Programme: Ph.D. (Veterinary Pharmacology and Toxicology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented as per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Pharmacology and Toxicology was established as one of the premier constituent units in the Veterinary College and Research Institute, Namakkal, of Tamil Nadu Veterinary and Animal Sciences University, on 14.06.1985 with the main objective of imparting education for the under graduate and post graduate students of Veterinary Science.

#### **Objectives**

- ❖ To impart education in Veterinary Pharmacology and Toxicology to Undergraduate / Postgraduate and Doctoral degree students.
- ❖ To carryout need based pharmacological and toxicological research on natural and synthetic drugs and their products.
- ❖ To offer drug information services to farming and scientific community

#### Facilities available in the Department

S.No	Name of the Instrument/ facility					
1.	UV-VIS Spectrophotometer					
2.	Vertical Laminar air flow					
3.	Digital Plethysmometer					

# **Salient Achievements**

#### I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	13	1	14
Ph.D	04	-	4

#### II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	4	6	-	-	2
Ongoing	-	-	-	-	-	-	-	1	2
Total	-	1	1	-	-	2	-	-	-

# Seminar/Symposium/Training Programmes Organised/Ongoing

T:41-	Funding	Period	l	T
Title	Agency	From	То	Type of event
Brain storming session with poultry veterinarians and faculties of Veterinary College and Research Institute, Namakkal, to discuss the field problems and their solutions, and to identify the research gaps	NA	29.03.2019	Others	Brain storming session with poultry veterinarians and faculties of Veterinary College and Research Institute, Namakkal, to discuss the field problems and their solutions, and to identify the research gaps
Organized the 'Engagement with Budding vets' programme	Virbac Animal Health Care Ltd.	27.06.2019	Others	Organized the 'Engagement with Budding vets' programme

# Achievement of the Department during 2019-20

- ❖ Developed E-learning content for the course Veterinary Pharmacology and Toxicology
- \* Computer Aided Learning module for experimental pharmacology in laboratory animals
- ❖ Developed a text book on Multiple Choice Questions (MCQ) in Veterinary Pharmacology and Toxicology for Under graduate and Post graduate students under ICAR Development Grant (2017 − 18)
- ❖ Mapped lead level in Namakkal District and assessed the developmental neurotoxicity in Zebrafish

- ❖ Disseminated the ethnoveterinary knowledge to farming community, Veterinarians working in government organizations and TANUVAS faculties.
- Prepared herbal saplings and distributed to needy farmers
- ❖ Pharma Quiz for IV and V year Students on 13.02.2019
- ❖ Vaccine procurement and distribution for 'District level anti-rabies mass vaccination campaign for pet animals at Namakkal district' on the eve of World Rabies Day 28.09.2018.
- ❖ Herbal Garden maintenance and sale of herbal saplings
- ❖ 50 farmers from Kangeyam Cattle Research Centre under ATMA scheme visited herbal garden on 13.09.2019.
- ❖ Bihar Veterinary College final year B.V.Sc., & A.H students (33 Nos) visited the herbal garden on 28.01.2020.
- Dr. R. Yogeswari and Dr. M. Sakthi Priya took TNPSC coaching class at VCRI, Namakkal on 29.01.2020

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	1	1	staff strength is as follows:  Professor:
3.	Assistant Professor	3	3	0	Associate Professor : -
	Total	6	5	1	Assistant Professor: - Total: -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Name of the incumbent holding thepos	
VET	ERINARY PHARMACOLOGY	AND T	OXIC	OLOC	GΥ	
1	Professor	1	1	0		Dr.A.Jagadeeswaran
2	Associate Professor	2	1	1	1	Dr.M.J.Raja (Asst. prof )
					2	Vacant

3	Assistant Professor	3	3	0	1	Dr.P.Mekala (Working atPDDSL)
					2	Dr.R.Yogeswari (working at Educell)
					3	Dr.P.Sankar
4	Junior Assistant	1	0	1		Vacant
5	Livestock Ins.Gr.II	1	0	1		Vacant
6	Attendant	1	1	0		Th.A.Subramaniam
	Total	9	6	3		

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet		Major equipment
1.	Veterinary Pharmacology and Toxicology	1200	-	*	UV Visible Double Beam Spectrophotometer – PC based
	Toxicology			*	Rotary Vacuum Evaporator
				*	Tissue homogenizer

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

# 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of

the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher	PG Guide				
1	VPT	6	3				

# 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A. Feed back from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

# 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr.AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

# 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

# 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years						At	trition (	%)			
2015- 2016					2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
2	2				-	-	-	-	-	-	-	

# 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

# Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise.
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.1.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary Pharmacology and Toxicology)

Dr.M.Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# Ph.D. in Veterinary Physiology

# 6.4 Self Study Report for the Programme: Ph.D. (Veterinary Physiology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Physiology was established during 1985 and has been offering undergraduate courses since then. The postgraduate programme was started in the Department during the year 2000. To its credit, the Department has well equipped radioimmunoassay Laboratory and gas chromatography facility. Apart from undergraduate and postgraduate teaching, the Department involves in the research and provides analytical facility.

#### **Objectives**

- Imparting education to the Undergraduate and Postgraduate students in Veterinary Physiology
- Undertaking Research in Veterinary Physiology

#### **Facilities Available in the Department**

Sl. No	Name of the instrument	Utility
1.	Gas chromatograph	To analyze fatty acids composition
2.	Gamma counter	To analyze hormone profile
3.	UV-VIS Spectrophotometer	To analyze biochemical profile

#### **Salient Achievements**

#### I. Education

#### Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	12	-	12
Ph.D	5	2	7

#### II. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	1	-	-	-	1	1	1	7	-
Ongoing	2	-	-	-	-	-	-	-	1
Total	3	-	-	-	1	1	1	7	1

# Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding	Per	iod	Type of event
	Agency	From	To	
"Application of progesterone impregnated intravaginal sponges to synchronize and or to induce estrus in dairy animals - An update to large animal veterinarians"	Under Self financing scheme	29.11.2019	Workshop	"Application of progesterone impregnated intravaginal sponges to synchronize and or to induce estrus
				in dairy animals - An update to large animal veterinarians"

#### Achievement of the Department during 2019-20

• Organized a workshop on "Application of progesterone impregnated intravaginal sponges to synchronize and or to induce estrus in dairy animals - An update to large animal veterinarians"

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	1	1	staff strength is as follows: Professor:
3.	Assistant Professor	3	3	0	Associate Professor : -
	Total	6	5	1	Assistant Professor: - Total: -

# 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Name of the incumbent holding thepost	
VET	ERINARY PHYSIOLOGY					
1	Professor	1	1	0		Dr.P.Selvaraj
2	Associate Professor	2	1	1	1	Vacant
					2	Dr.K.Ramesh
3	Assistant Professor	3	3	0	1	Dr.T.Sathya Bama
					2	Dr.M.Prabhu
					3	Dr.K.Devipriya
4	Attender	1	1	0		Tmt. S.Rajeswari
5	Attendant	1	1	0		Th.M.Kumarasamy
	Total	8	7	1		

# 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary	1200	600	❖ Spectrophotometer
	Physiology	1200	600	<ul> <li>Gas chromatograph</li> </ul>
				<ul> <li>Gamma counter</li> </ul>
				<ul> <li>Stereo microscopes</li> </ul>
				<ul> <li>Research microscopes</li> </ul>

# 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available						
		PG Teacher	PG Guide					
1	VPY	2	1					

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

# 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

# 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	0%)			
2015- 2016						2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	
-	-	1	-	1	1	-	-	-	-	-	-	-	-

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

#### 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary Physiology)

Dr.M.Selvaraju, Ph.D.,

Dean

Veterinary College and Research
Institute, Namakkal 637 002.

# Ph.D. in Veterinary Surgery and Radiology

# 6.4 Self Study Report for the Programme: Ph.D. (Veterinary Surgery and Radiology)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Surgery and Radiology was started in the year 1985 to teach Veterinary Surgery to the under graduate students. Post graduate degree (M.V.Sc.) and Ph.D. degree programmes are being offered from 2001 and 2004 respectively.

#### **Objectives**

- ❖ To impart UG and PG education
- ❖ Treatment of animals and disease diagnosis at Veterinary College Hospital using special diagnostic aids like radiography and CT scan
- ❖ Disease investigation in field especially surgical cases
- Extension activities
- Farm advisory service and conducting training programs for the field veterinarians

# Facilities available in the Department

Sl. No.	Name of the instrument/facility					
1	1 Argus multigas monitor with spirtometer					
2	Autoclave Horizontal model					
3	C-Arm unit					
4	Genious 60 mobile X-ray unit					

5	Computerized Radiography unit				
6	Ceiling fixed shadowless lamp				
7	Operating microscope				
8	Hydraulic operation table for large animals				
9	Hydraulic operation table for Small animals				
10	Patient Vital sign Monitoring System				
11	X-ray unit 500 mA				
12	Operating light with CCTV				
13	Large Animal Gaseous Anaesthetic machine				
14	Computated Tomography procedure - Calf				
15	Gaseous anaesthesia - Cat				
16	Gaseous anaesthesia - Cow				
17	Gaseous anaesthesia - Dog				
18	Gaseous anaesthesia - Turkey				

# **Salient Achievements**

# I. Education

# Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	1	5	6
Ph.D	-	2	2

# II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	-	-	-	-	-
Ongoing	-	-	-	-	-	-	-	1	-
Total	-	-	-	-	-	-	-	1	-

# Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding	Per	riod	Type of event
Title	Agency	From	To	Type of event
XXXV Annual Convention of the Indian Society for Study of Animal Reproduction (ISSAR) and International Symposium at Department of Veterinary Gynaecology and Obstetrics, Veterinary College and Research Institute, Namakkal – 637 002		18.12.19	20.12.19	International Symposium and Annual convention of the Indian Society for Study of Animal Reproduction (ISSAR)

#### Achievement of the Department during 2019-20

# **Hospital Services - Cases Treated - April 2019 - Jan.2020**

April 2019 – Jan.2020	Dogs	Cats	Birds	Calves	Sheep	Goats	Cattle	Buffalo	Horses	Others	Total
Out- patient	3454	339	113	125	168	1206	1714	176	67	37	7399
IP cases	8	0	0	1	0	2	299	14	27	0	351
										TOTAL	7750

#### Surgeries and X Rays

- Performed 110 major and 83 minor surgeries and 13 neutering in small animals and 198 minor and 74 major surgeries in large animals.
- ❖ In the radiology section 1037 plain radiographs and 10 contrast radiographs were taken in small animals and 401 plain radiographs and two contrast radiographs were taken in large animals.
- ❖ Large Animal Gastro intestinal surgeries in cattle has been standardized in regional nerve block and under injectable and Gaseous anesthetics
- ❖ Diagnosis and Surgical Management of diaphragmatic hernia in bovine under gaseous general anaesthesia has been standardized.
- ❖ Anaesthetic protocol for feline ovariohysterectomy has been standardized.

# 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	2	1	1	staff strength is as follows: Professor:
3.	Assistant Professor	3	3	0	Associate Professor : -
	Total	6	5	1	Assistant Professor : - Total : -

#### 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Na	Name of the incumbent holding thepost	
VET	ERINARY SURGERY AND RAD	IOLO	GY				
1	Professor	1	1	0		Dr.S.Dharmaceelan	
2	Associate Professor	2	1	1	1	Dr.S.Kathirvel, Professor	
					2	Vacant	
3	Assistant Professor	3	3	0	1	Dr.K.Jayakumar	
					2	Dr.K.Ramya (Working atEducation cell)	
					3	Dr.K.Vijayakumar	
4	Typist	1	0	1		Vacant	
5	Livestock Inspector Gr.II	1	1	0		Th.M.Sampath, Attender	
6	Attendant	1	1	0	Th.G.Manoharan		
	Total	8	7	1			

# **6.4.4 Classrooms and Laboratories**

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Surgery andRadiology	600	800	<ul> <li>Major instruments are kept at clinical complex</li> <li>C-Arm</li> <li>Digital X-Ray unit</li> <li>Large animal anaesthesia</li> <li>apparatus</li> <li>Other Operation theatre accessories for small and largeanimals surgery</li> </ul>

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available					
		PG Teacher	PG Guide				
1	VSR	5	3				

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

# 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

Actual student admitted in last five years				Attrition (%)									
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
-	-	1	1	-	2	-	-	-	-	-	-	-	-

# 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. - Yes

6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

# 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary Surgery and Radiology)

Dr.M.Selvaraju, Ph.D.,
Dean
Veterinary College and Research
Institute, Namakkal 637 002.

# Ph.D. in Veterinary Public Health

#### 6.4 Self Study Report for the Programme: Ph.D. (Veterinary Public Health)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented as per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

# 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

This department was newly created in Veterinary College and Research Institute, Namakkal during the year 2018 as per Veterinary Council of India – Minimum Standards of Veterinary Education Regulations (VCI-MSVE) -2016. This department is routinely offering UG courses as per old (2008) and new (2016) VCI regulations. Department is being strengthened with needy equipments as per VCI regulations. Staff from this department are routinely attending Infectious disease unit at Veterinary Clinical Complex, VC&RI, Namakkal for treatment and control of infectious diseases of pet animals. This department routinely conducting awareness programme to the staff, students and public on the eve of World Tuberculosis Day, World Zoonoses Day, World Rabies Day and World environment day.

# **Objectives**

- To impart UG education in the discipline of Veterinary Public Health and Epidemiology for long-term benefit of human and animal welfare.
- To improve and enhance the quality of animal and human health by application of specialized knowledge and skills of epidemiology and population medicine.
- ❖ To undertake field oriented research projects on epidemiology of zoonotic diseases and modelling for effective implementation of strategic measures.
- ❖ To disseminate scientific knowledge on meat and milk hygiene, public health and zoonotic diseases to the healthcare professionals and public

## Facilities available in the Department

Sl. No.	Name of the instrument/facility
1.	Serological water bath
2.	Digital pH meter
3.	Electronic weighing balance
4.	Laminar flow (vertical)
5.	Spinwin
6.	Spectrophotometer
7.	Hot airoven
8.	Cooling Incubator
9.	Centrifuge
10.	B.O.D incubator
11.	Deep freezer (-18°C)
12.	Tissue homogenizer
13.	Rotary shaker
14.	Somatic cell counter
15.	Vortex shaker
16.	Magnetic stirrer
17.	Biosafety cabinet level II

#### **Salient Achievements**

#### I. Education

#### Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	12	4	16
Ph.D	10	-	10

#### II. Research

## **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	-	-	-	-	-
Ongoing	-	-	-	-	-	1	-	-	-
Total	-	-	-	-	-	1	-	-	-

## Achievement of the Department during 2019-20

- ❖ World Tuberclosis day celebrated on 25.03.2019
- ❖ World Zoonosis day celebrated on 09.07.2019

❖ World Rabies day celebrated on 28.09.2019

#### 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	0	0	0	As per the VCI, the required
2.	Associate Professor	1	1	0	staff strength is as follows:  Professor:
3.	Assistant Professor	1	1	0	Associate Professor : -
	Total	2	2	0	Assistant Professor: - Total: -

#### 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Name of the incumbent holding thepost
VET	ERINARY PUBLIC HEALTH AN	ND EPI	DEM	IOLO	GY
1	Associate Professor	1	1	0	Dr.G.Selvaraju Professor & Head
2	Assistant Professor	1	1	0	Dr.M.Geetha
	Total	2	2	0	

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Public Health and Epidemiology	1000	-	<ul><li>High end microscope</li><li>Laminar air flow station</li></ul>
	1 29			Spectrophotometer

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teacher	rs available
		PG Teacher	PG Guide
1	VPH	1	1

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years							At	trition (	%)			
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
-	-	-	-	-	-	-	-	-	-	-	-	-	-

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

#### 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary Public Health)

Dr.M.Selvaraju, Ph.D.,
Dean
Veterinary College and Research
Institute, Namakkal 637 002.

# Ph.D. in Veterinary Preventive Medicine

#### 6.4 Self Study Report for the Programme: Ph.D. (Veterinary Preventive Medicine)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of the respective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinary sciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, means first batch of the students have passed out. Further, if the programmes are not being implemented as per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

#### **6.4.1 Brief History of the Degree Programme**

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self-reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The Department of Veterinary Preventive Medicine was established during 1985 by offering undergraduate courses. The Postgraduate programme was stared during the year 1993. Six under graduate subjects, twelve Master's degree subjects and fourteen doctoral programme subjects are teaching to the students of respective degree programmes. The Department focus is the diagnosis and understanding the epidemiology of infectious diseases of livestock, poultry and companion animals prevalent in local regions by molecular and serological approach and thereby providing solution to uplift the farming communities. The Department has identified the regional important zoonotic diseases of Leptospirosis, Brucellosis, Anthrax and rabies and involved in the first report of bovine leptospirosis vaccine preparation and diagnosis of Bovine Viral Diarrhoea in Tamil Nadu.

#### **Objectives**

- ❖ To impart education to the under graduate and postgraduate students in the subject of Veterinary Preventive Medicine.
- To adopt suitable research programmes and provide facilities to the postgraduate and doctoral degree students for doing their research work.
- \* Carrying out research projects funded by the university / external sources.
- Disease surveillance and creation of database for forecasting and control of poultry diseases

# **Facilities available in the Department**

Name of the instrument/facility
Fluorescent microscope with MC 80D cum camera (ZEISS)
ELISA reader (BIO-RAD)
Inverted Microscope (JENICO)
Binocular student microscope (LABOMED)
Vertical laminar flow with SS (CLASSIC AIR SYSTEM AND SERVICES)
Upright freezer (-86°C) (THERMO SCIENTIFIC)
PCR Master cycler ( EPPENDORF )
Refrigerated centrifuge – REMI (C-24 plus)
PCR Gel documentation system (MEDOX)

#### **Salient Achievements**

#### I. Education

#### Student Output

Degree	From 1993 to 2018-19	<b>During 2019-20</b>	Total
M.V.Sc	26	-	26
Ph.D	10	1	11

#### II. Research

# **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	-	-	-	-	1
Ongoing	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	1

# Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding Agency	Per	riod	Type of event
Title	Funding Agency	From	То	Type of event
International conference on "Current scenario and future strategies of disease control for augmenting livestock and poultry productivity under changing climatic conditions" at VC & RI, Namakkal	-	20.11.19	22.11.19	Conference
ICAR-Short Course on "Advanced clinical epidemiology in disease diagnosis and vaccination foe sustainability of livestock and poultry health	ICAR	17.02.20	26.02.20	Training

#### Achievement of the Department during 2019-20

- Conducted an International conference on "Current scenario and future strategies of disease control for augmenting livestock and poultry productivity under changing climatic conditions
- Conducted ICAR-Short Course on "Advanced clinical epidemiology in disease diagnosis and vaccination foe sustainability of livestock and poultry health".
- ❖ A total 3050 dogs were vaccinated at veterinary clinical complex, Namakkal.( 1628: DHLPPi and 764: ARV)
- ❖ Diagnosed and confirmed Bluetongue virus and PPR in sheep and goats respectively
- \* Routine investigation and diagnosis for brucellosis, leptospirosis and rabies

#### 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	1	1	0	As per the VCI, the required
2.	Associate Professor	1	1	0	staff strength is as follows:
3.	Assistant Professor	1	1	0	Associate Professor : -
	Total	3	3	0	Assistant Professor : - Total : -

#### **6.4.3** Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

#### VETERINARY COLLEGE AND RESEARCH INSTITUTE, NAMAKKAL

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	Name of the incumbent holding thepost		
VET	ERINARY PREVENTIVE MEDI	CINE					
1	Professor	1	1	0		Dr.K.M.Palanivel	
2	Associate Professor	1	1	0	1	Dr.R.Rishikesavan, Asst. Prof.	
3	Assistant Professor	1	1	0	1 Dr. M.Saravanajayam		
4	Typist	1	0	1	1 Vacant		

5	Attendant	1	1	0	Tmt.M.Valli
	Total	5	4	1	

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary Preventive Medicine	1200	800	<ul> <li>Nikon Binocular microscope         (E 400)</li> <li>Analytical balance (KERN)</li> <li>ELISA reader (BIO-RAD)</li> <li>PCR system- Gel documentation system</li> <li>VILBER LOURMAT</li> </ul>

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- ❖ Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/ UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory

committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available						
		PG Teacher PG Guide						
1	VEP	2	1					

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were

encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

	Actual student admitted in last five years						At	trition (	%)				
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
-	-	1	-	-	1	-	-	-	-	-	-	-	-

#### 6.4.9. ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- 4. Smart system enabled digital library software and lecture notes.
- 5. Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.

#### 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary Preventive Medicine)

Selvaraju, Ph.D.,

Veterinary College and Research Institute, Namakkal 637 002.

# Ph.D. in Veterinary Biochemistry

#### 6.4 Self Study Report for the Programme: Ph.D. (Veterinary Biochemistry)

The HAEIs should submit the SSR for each Degree Programme to be included in the report of therespective College. The criteria are that the programme must have completed five years and its first batch has been passed out (in case of four year UG degree programme), however in case of veterinarysciences degree programmes the period may be more than five years. For PG/PhD programmes, the SSR should only be submitted, if the Degree Programme is eligible for accreditation, meansfirst batch of the students have passed out. Further, if the programmes are not being implemented per the guidelines of ICAR, specifically the degree nomenclature and other recommendations of V Deans' Committee and BSMA committee reports, these Degree Programmes are not eligible for ICAR accreditation. Only those Degree Programmes which fulfil the ICAR guidelines are eligible for accreditation and the SSR of these Degree Programmes shall be submitted under the following headings:

#### 6.4.1 Brief History of the Degree Programme

The second Veterinary College, Veterinary College and Research Institute, Namakkal was established during the year 1984. Initially it was started in a school campus and later it was moved to the present campus which sprawls over 500 acres with pleasant foot hill on western side and state highways on eastern side. The main objective of the college is to produce qualified and skilled professionals in veterinary and animal husbandry sector for state run institutions of the government and private sectors for welfare of the society. Until 1989, the college was under the jurisdiction of TamilNadu Agricultural University and became one of the constituent colleges of TANUVAS, Chennai.

During the year 1993, post graduate programme was started in six subjects namely Animal Genetics and Breeding, Animal Nutrition, Veterinary Parasitology, Poultry Science, Veterinary Microbiology and Veterinary Pathology and since 1999, M.V.Sc., and Ph.D., programme was offered in all the subjects. Over the years, the college has evolved itself as self- reliant in many of the infrastructure like farm complex, clinical complex and specialised laboratories exclusively for farmers.

The department of Veterinary Biochemistry started functioning since 1985 at Veterinary College and Research Institute, Namakkal. The department offers four undergraduate courses for the first, third, fourth and final year of B. V. Sc & A.H and also minor courses for Post-graduate and Doctoral programmes. The department has well-furnished laboratory facilities for both UG and PG students with basic instruments like spectrophotometer, refrigerated centrifuge, electrophoresis, gel documentation, chromatography units, etc., for effective teaching and research. The department routinely helpful in analysis of clinical samples at Clinical Biochemistry Laboratory-Veterinary Clinical Complex, Namakkal. The department extends research guidance and support to all the PG and Ph.D scholars of VC & RI and also to scholars from other universities.

#### **Objectives**

- \* Teaching biochemistry to the undergraduate and postgraduate students
- Offering analytical advice to the postgraduate students.
- Analysis of clinical samples

#### Facilities available in the Department

Name of the instrument/facility
Spectrophotometer, Colorimeter
Refrigerated centrifuge
Electrophoresis and chromatography units
Gel documentation

#### **Salient Achievements**

#### I. Research

#### **Projects**

Status	ICAR	DBT	NADP/ RKVY	DST	GOI	TNSCST	NABARD	University sub-project	Others
Completed	-	-	-	-	1	-	-	-	-
Ongoing	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	1	-	-	-	-

#### Seminar/Symposium/Training Programmes Organised/Ongoing

Title	Funding Agency	Per	Type of ayant	
Title	Funding Agency	From	То	Type of event
Molecular biology techniques for genome analysis	-	30.05.2019	13.06.2019	Training

#### 6.4.2 Faculty Strength

The faculty strength of the Degree Programme need to be given cadre-wise, both sanctioned and inplace (under the table mentioned below). Clearly mention the number of permanent faculty appointed for the Degree Programme, part time faculty being deputed from the other departments (in such case mention the name of these departments). If the Degree Programme is also taking the help of Research staff, extension staff, contractual faculty, guest faculty, adjunct faculty or any other arrangement being made to complete the curriculum, it should be clearly mentioned in the report.

S.No.	Faculty Designation	Sanctioned	Faculty in place	Vacant	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1.	Professor	0	0	0	As per the VCI, the required
2.	Associate Professor	1	1	0	staff strength is as follows:  Professor:
3.	Assistant Professor	2	1	1	Associate Professor : -
	Total	3	2	1	Assistant Professor: - Total: -

#### 6.4.3 Technical and Supporting staff

The position of the technical and supporting staff of the Degree Programme including farm and field workers need to be mentioned for both sanctioned and in place

Sl. No.	Name of the Post	Sanction Strength	Staff in position	No. of Vacancy	No. of the incumbent holding the	
VET	ERINARY BIOCHEMISTRY	r			1	
1	Associate Professor	1	1	0		Dr.R.Prakash Krupakaran, Professor
2	Assistant Professor	2	1	1	1	Dr.S.Jayachandran, Professor & Head,
					2	Vacant
3	Attender	2	2	0	1	Th.R.Arangavadivelan
					2	Th.A.Bronson
4	Attendant	1	0	1		Vacant
l		6	4	2		

#### 6.4.4 Classrooms and Laboratories

Mention the number of class rooms and functional laboratories available for the degree programme and justify if it is sufficient to meet the course curricula requirement. Lists major equipments, laboratories, farm facilities, workshops and other instructional units being utilized for the award of the Degree Programme may be given. Mention theory and practical batches for the Degree Programme.

S. No.	Name of the Department	Number of UG Lab with Dimension in square feet	Number of PG Laboratory With Dimensionin square feet	Major equipment
1.	Veterinary	1200	-	<ul> <li>Spectrophotometer</li> </ul>
	Biochemistry			<ul> <li>Digital analytical balance</li> </ul>

#### 6.4.5 Conduct of Practical and Hands-on-Training

It is important to have a sound grasp of the theory that underlies any professional degree. But there are some skills that can only be learned through hands-on-practice. It is important that much ofthe learning material in any given course should be provided in a way that allows students to get as involved as possible to increase their knowledge and abilities. Clearly mention how far students are getting desired practical and hands-on-training as per the curriculum and meeting above mentioned requirements.

- Apart from regular classroom teaching, enough hands-on-training is offered to the students during practical hours, to meet the protocol / syllabi mentioned in PG curriculum.
- Students are getting excellent hands-on-training with regard to treatment protocols, surgical procedures, various diagnostic facilities viz. Haematological examination, X-ray, ultrasound, diagnostic procedures, emergency critical care management from a well-established Veterinary Clinical Complex of Veterinary College and Research Institute, Namakkal.

#### 6.4.6 Supervision of students in PG/PhD programmes

Number of students being supervised by Faculty in case of Masters/Ph. D Programme (as per ICAR/UGC guidelines). Mention the realistic figure number of qualified faculty in relation to the intake of students, as per the guidelines in the matter.

Every student admitted to the post-graduate programme of the college is being mentored by the Head of Department first to induct to the department activities for a month and the courses relevant and important to the students are selected after having a series of discussion with faculties of the department and interest of the students taking into consideration. Subsequently, the plan of course work in the core subject and minor subjects are decided considering the area of research which the student is going to work. Having ascertained the potential of the student and satisfying the departmentlong term objectives on the research front, students advisory committee members are selected best among the list from own and other relevant departments. Adequate care is taken before selecting the faculty as member of advisory committee based on his or her experience on the proposed research topic and possible support in terms of equipment and laboratory support.

Following the guidelines of TANUVAS PG Regulations and ICAR PG Regulations 2008, everystudent is given with Chairman, one member from the department and other member from minor / support department for M.V.Sc. program constituting three faculty members for each student. Similarly, experienced faculty of the department as Chairman, one senior faculty as department Members and two other members from other departments. Semester wise plan of action will be prepared, mid-term evaluation by the members, monthly evaluation by the chairman is regularly carried out. Students maintain observation book / log book / day book which would ascertain their day-to-day research activity. Evaluation and assessment of the research work is being monitored bythe Advisory Committee as per the norms of the university.

At present 20 teaching department have PG teachers and PG guides to supervise post graduate research work. There are about 43 PG teachers and 37 PG guides available at present.

Sl.No.	Name of the Discipline	No. of recognized teachers available			
		PG Teacher	PG Guide		
1	VBC	1	1		

#### 6.4.7 Feedback of stakeholders (Students, parents, industries, employers, farmers etc.)

Mention the feedback mechanism (duly supported by the documents) from different stakeholders of the degree programme. What action the University has taken in last five years to address the issues raised in the feedback?

A Feedback from received from the private company CEO / MD/GM/ HR managers were received and their general comment on our graduates are as follows

Soft skill and communications skills are lacking and presenting themselves before board of interviewer needs to be strengthened

#### Action taken by the college

#### 1. Soft skill development

All the UG students were trained on Soft skills and communications for a period of three days on The programme was an eye opener for the students with respect to overall personality development comprised of setting SMART goals, Time Management, Effective Listening and Communication, Steps to improve presentation skills, Problem solving and Team building. The students were

encouraged to deliver a mock presentation which was recorded and played back for understanding the do's and don'ts during presentation. The programme was conducted by HR trainer approved by the ICAR, New Delhi.

#### 2. Problem based learning

"Problem based learning" programme was organised for 77 undergraduate students. In this programme, students were converted into small groups / team and a case was presented before them tobe solved. By means of solving the problem they were taught about the concept in subjects. Dr. AyonaSilva-Fletcher and Dr. Nigel Goode from Royal Veterinary College, London were the facilitators of the programme.

#### 3. Language skill programme

To improve language skill of first year students in English, a series of 25 classes, skill training with exercises (in spoken as well as written) and evaluation were conducted by the Faculty of English. Above programmes boosted the confidence level of graduates to face real world challenges when they start career in private or public sector.

After completion of each semester / professional year, the students are encouraged to offer their feedback regarding the course teachers and by the controlling Officer in the form of a questionnaire developed by the University as given in Annexure 1 and Annexure 2.

#### 6.4.8. Student intake and attrition in the programme for last five years

Year wise information on sanctioned strength, actual intake and attrition in the last five years of the Degree Programme, in the tabular form, shall be provided.

			tudent a	dmitted ears					At	trition (	%)		
2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022
-	-	-	-	-	-	-	-	-	-	-	-	-	-

#### **6.4.9.** ICT Application in curricula delivery

The ICT is now integral part of the teaching programme. ICAR has also been promoting the use of ICT in teaching and practical. Mention whether the Degree Programme is meeting the expectations. If there is any shortfall, it shall be clearly mentioned.

All the departments are conducting theory and practical class either using ICT tools or direct streaming of web contents since classroom and laboratories are digitally connected to university server *via* LAN.

#### Major digital support available for faculty and student's self-directed learning

- 1. TANUVAS e-learning contents in both online and offline mode.
- 2. Simulation models using licensed software for teaching and demonstration of basic concepts and applied clinical practices.
- 3. Smart class rooms with interactive boards connected to internet.
- **4.** Smart system enabled digital library software and lecture notes.
- **5.** Evaluation and continuous up-dation of question bank in digital format and answer pickup mode.
- **6.** Video format of the procedures and recorded hands-on training modules developed over a period of time.

The degree curricula specified in the ICAR and approved by the university is followed without any deviation.

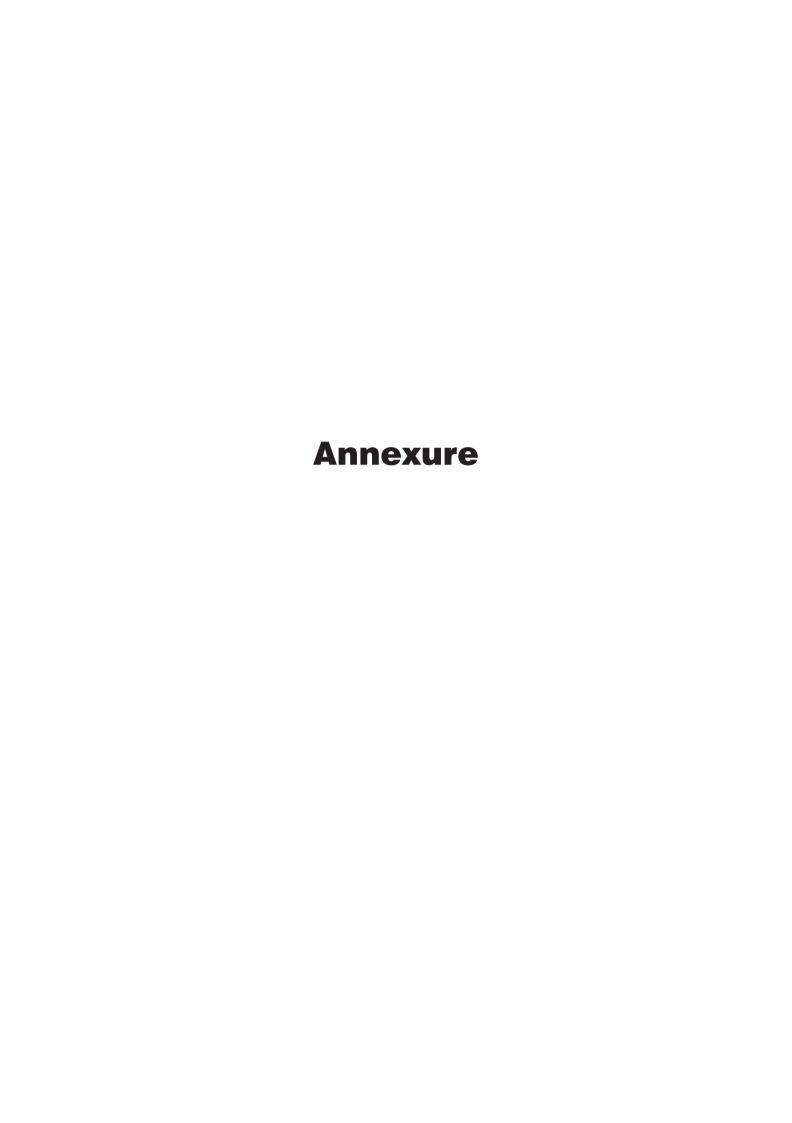
- 6.4.10. The information pertaining to 6.4.1 to 6.4.9 shall be provided for each one of UG, PG and PhD Degree Programmes, separately, and to be presented College-wise. Yes
- 6.4.11. Since the accreditation of Programmes is related to the All India Admission from ICAR and also having weightage for College accreditation, therefore the data presented in the section 6.4 is liable to the verification at any stage.
- 6.4.12. Certificate (Applicable when SSR is submitted for Programme)

I, the Dean Dr.M.Selvaraju hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Accreditation is requested for PhD (Veterinary Biochemistry)

Dr.M.Selvaraju, Ph.D.,

Dean
Veterinary College and Research
Institute, Namakkal 637 002.



#### Annexure 1

#### **EVALUATION OF TEACHERS BY STUDENTS**

(done after completion of every course)

Name of the Teacher :

Designation :

Department :

Course No., Title & Credit hours:

Start date of the semester :

Closure date of the semester :

(tick in the appropriate column)

			GRADI	NG	
S.No.	PARAMETERS	Excellent (A)	Good (B)	Fair (C)	Poor (D)
1	Delivering subject (objective & coverage)				
2	Use of audio - visual aids				
3	Supply of course materials				
4	Clarity of expression				
5	Interaction with students in the class room				
6	Style of teaching				
7	Summarisation of previous class lectures				
8	Encouraging class room discussion				
9	Accepting suggestions				
10	Impartial student evaluation				
11	Punctuality				
12	Taking care of low performing students				
13	Cordiality with students				
14	Motivation of students				
15	Involvement in student activities				

Total score =  $\{No. \text{ of ticks in col. (A) } \times 3\} + \{No. \text{ of ticks in col. (B) } \times 2\} + \{No. \text{ of ticks in col. (C) } \times 3\}$ 

1} + {No. of ticks in col. (D) x 0}

Mean score = Total score / 15

Name of the student and signature (optional)

#### Annexure 2

#### EVALUATION BY CONTROLLING OFFICER (after each course or every year)

Name of the Teacher :
Designation and address :

(tick in the appropriate column)

03000	Personal Conference		GRADIN	G	
S.No.	PARAMETERS	Excellent (A)	Good (B)	Fair (C)	Poor (D)
1	Punctuality	=50505			100000
2	Communication skills				
3	Organising ability				
4	Counselling skills				
5	Handling student's problem				
6	Inter-personal relations and team work				
7	Involvement in student activities				
8	Participation in university/ institutional development				
9	Execution of special assignments				
10	Commitment and dedication to job assigned				

Total score =  $\{No. \text{ of ticks in col. (A) } \times 3\} + \{No. \text{ of ticks in col. (B) } \times 2\} + \{No. \text{ of ticks in col. (C) } \times 3\}$ 

1) + {No. of ticks in col. (D) x 0}

Mean score = Total score / 10

Signature of the Controlling Officer

# MEAN SCORES AND RANKING OF TEACHERS BASED ON EVALUATION BY STUDENTS AND CONTROLLING OFFICER

Average mean score obtained of student evaluation*	Average mean score of two annual assessments by controlling officer (b)	Total annual mean score** (c) = (a+b)/2
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<sup>\*</sup> if no. of courses is more than one in a year, average of mean scores of different scores is to be obtained and indicated.

<sup>\*\*</sup> score of 2.6 and above - Outstanding teacher; 2.1 to 2.5 - Good teacher; 1.6 to 2.0 - Average teacher; 1.5 and below - Below average teacher