

3. Course Curricula and Syllabi

3.1 Coding of degree courses

- All courses are to be divided into two series – 500 and 600 series. The 500 series pertain to M. Sc. and the 600 series relate to Ph. D. programme. It would be compulsory for a Ph. D. student to take a minimum of two 600 series courses. However, with the approval of the Chairman Advisory Committee, a Ph. D. student would be free to enroll in those 500-series courses, which he has not studied at the Master's level.
- Credit seminar at the Master's level would uniformly be designated by code no. 591. The two compulsory seminars to be delivered by each Ph. D. student would be coded 691 and 692, respectively.
- Similarly, 599 and 699 codes should be assigned to research work pertaining in that order to Master's and Doctoral level programmes.
- For Veterinary subjects, the corresponding code numbers for Master's and Doctoral programme would be 600 and 700 series. This is being recommended to avoid confusion with existing 500 series course designations given by the Veterinary Council of India for B.V.Sc. & AH students.

3.2 Course curricula organization

- Each reorganized course curriculum must inform the students on what is going to be taught and elucidate the basic purpose of expected learning in theory and practical
- The contents of the course must be divided into discreet units to facilitate uniform coverage of syllabus for paper setting.
- As per need and appropriateness, some part of the practical training must be conducted in real life situations. Also practical training be augmented through liberal use of multi-media and ICT mediated simulations.
- Each instructor in the beginning of the course itself must give a list of standard books and other reference material for reading. Specifically for 600 series courses a directory of journals/monographs/reviews pertaining to the course should be provided at the end of a lecture. The instructor is also recommended to inform on the relevant E-resources on specific/topics events pertaining to the subject.
- Two to three special lectures on key topics of syllabus may be organized from native/foreign experts through video-conferencing. Council is recommended to guide in formalizing this initiative and provide funds for establishing video-conferencing facility at each university.

3.3 Course listing and degree nomenclature

Each BSMAC, pertaining to the assigned subject area, has drafted a fresh list of M. Sc and Ph. D. courses. The listing contains ongoing courses and modifications if any and new courses to be adopted by the different entities of the ICAR-AUs System. Details are available in the respective reports of the BSMAC (BSMAC Reports I-XVIII). The NCG suggested list on 95 Broad Subject Areas was recasted into 83 (represent faculty of a University) post graduate degree programmes. Accordingly, degree nomenclature for 83 postgraduate courses is presented below in a tabular form. It is recommended for adoption across agricultural universities/institutions.

Table 1. Broad Subject Matter Areas, PG Degree Courses and Degree Nomenclatures

Broad Subject Matter Area	PG Degree Courses (Total = 83)	Degree Nomenclature	
		Master's programme	Doctoral programme
Basic Sciences	Agricultural Chemicals	M. Sc.	Ph. D.
	Biochemistry	M. Sc.	Ph. D.
	Chemistry	M. Sc.	Ph. D.
	Microbiology	M. Sc.	Ph. D.
	Plant Physiology	M. Sc.	Ph. D.
Biotechnology & Bioinformatics	Animal Biotechnology	M. V. Sc.	Ph. D.
	Bioinformatics	M. Sc.	NR*
	Molecular Biology & Biotechnology	M. Sc.	Ph. D.
Plant Sciences	Genetics & Plant Breeding	M. Sc. (Ag.)	Ph. D.
	Seed Science & Technology	M. Sc. (Ag.)	Ph. D.
Physical Sciences	Agricultural Meteorology	M. Sc. (Ag.)	Ph. D.
	Agricultural Physics	M. Sc. (Ag.)	Ph. D.
	Agronomy	M. Sc. (Ag.)	Ph. D.
	Soil Science	M. Sc. (Ag.)	Ph. D.
Plant Protection	Entomology	M. Sc. (Ag.)	Ph. D.
	Nematology	M. Sc. (Ag.)	Ph. D.
	Plant Pathology	M. Sc. (Ag.)	Ph. D.
Social Sciences	Agri-Business Management	M. B.A.	NR*
	Agricultural Economics	M. Sc. (Ag.)	Ph. D.
	Agricultural Extension	M. Sc. (Ag.)	Ph. D.
Statistical Sciences	Statistics/Agricultural Statistics	M. Sc.	Ph. D.
	Bio-Statistics	M. Sc.	NR*
	Computer Application	M. Sc.	NR*
Horticultural Sciences	Fruit Science	M. Sc. (Hort.)	Ph. D.
	Vegetable Science	M. Sc. (Hort.)	Ph. D.
	Floriculture and Landscape Architecture	M. Sc. (Hort.)	Ph. D.
	Plantation Crops, Spices, Medicinal and Aromatic Crops	M. Sc. (Hort.)	Ph. D.
Forestry	Wood Science & Technology	M. Sc. (Forestry)	Ph. D.
	Medicinal & Aromatic Plants	M. Sc. (Forestry)	Ph. D.
	Agroforestry	M. Sc. (Forestry)	Ph. D.
	Forest Genetic Resources	M. Sc. (Forestry)	Ph. D.
	Forest Biotechnology	M. Sc. (Forestry)	Ph. D.

	Plantation Technology	M. Sc. (Forestry)	NR*
	Watershed Management	M. Sc. (Forestry)	NR*
	Eco-Tourism	M. Sc. (Forestry)	NR*
	Environmental Management	M. Sc. (Forestry)	NR*
	Forest Business Management	M. Sc. (Forestry)	NR*
	Silviculture	NR*	Ph. D.
	Natural resource Economics	NR*	Ph. D.
Agri. Engg.	Farm Machinery & Power Engineering	M. Tech.	Ph. D.
	Soil & Water Engineering	M. Tech.	Ph. D.
	Processing & Food Engineering	M. Tech.	Ph. D.
Home Science	Foods and Nutrition	M. Sc. (Home Sc.)	Ph. D.
	Family Resource Management	M.Sc. (Home Sc.)	Ph. D.
	Human Development and Family Studies	M. Sc. (Home Sc.)	Ph. D.
	Textile and Apparel Designing	M. Sc. (Home Sc.)	Ph. D.
	Home Science Extension and Communication Management	M. Sc. (Home Sc.)	Ph. D.
Basic Vety. Sciences	Veterinary Anatomy & Histology	M. V. Sc.	Ph. D.
	Veterinary & Animal Husbandry Extension	M. V. Sc.	Ph. D.
	Veterinary Biochemistry	M. V. Sc.	Ph. D.
	Veterinary Physiology	M. V. Sc.	Ph. D.
Vety. Paraclinical Sciences	Veterinary Microbiology	M. V. Sc.	Ph. D.
	Veterinary Parasitology	M. V. Sc.	Ph. D.
	Veterinary Pathology	M. V. Sc.	Ph. D.
	Veterinary Pharmacology and Toxicology	M. V. Sc.	Ph. D.
	Veterinary Public Health	M. V. Sc.	Ph. D.
Vety. Clinical Sciences	Animal Reproduction, Gynecology & Obstetrics	M. V. Sc.	Ph. D.
	Veterinary Clinical Medicine, Ethics & Jurisprudence	M. V. Sc.	Ph. D.
	Veterinary Epidemiology & Preventive Medicine	M. V. Sc.	Ph. D.
	Veterinary Surgery & Radiology	M. V. Sc.	Ph. D.
Livestock Production Technology and Products Management	Animal Breeding	M. V. Sc.	Ph. D.
	Animal Nutrition	M. V. Sc.	Ph. D.
	Livestock Production and Management	M. V. Sc.	Ph. D.
	Livestock Products Technology	M. V. Sc.	Ph. D.
	Poultry Science	M. V. Sc.	Ph. D.
Fisheries	Aquaculture	M. F. Sc.	Ph. D.
	Aquatic Environment Management	M. F. Sc.	Ph. D.
	Aquatic Animal Health	M. F. Sc.	Ph. D.
	Business Management	M. F. Sc.	NR*
	Fish Biotechnology	M. F. Sc.	Ph. D.
	Fish Genetics and Breeding	M. F. Sc.	Ph. D.
	Fish Nutrition and Feed Technology	M. F. Sc.	Ph. D.
	Fish Physiology and Biochemistry	M. F. Sc.	NR
	Fish Processing Technology	M. F. Sc.	Ph. D.
	Fisheries Economics	M. F. Sc.	Ph. D.
	Fisheries Engineering and Technology	M. F. Sc.	NR*
	Fisheries Extension	M. F. Sc.	Ph. D.

	Fisheries Resource Management	M. F. Sc.	Ph. D.
Dairy Science & Technology	Dairy Technology	M. Tech.	Ph. D.
	Dairy Microbiology	M. Tech.	Ph. D.
	Dairy Chemistry	M. Tech.	Ph. D.
	Dairy Engineering	M. Tech.	Ph. D.
Food Science & Technology	Food Technology	M. Sc.	Ph. D.
		M. Tech.	

NR: Not recommended

3.4 Course contents

Details on course contents pertaining to each of the PG degree programmes are available in the 18 BSMAC Reports (Enclosures 1-18) and are recommended for adoption. Agricultural Universities may avail the flexibility to modify the approved course contents up to 25%. This flexibility is being allowed to shed the obsolete topics and include new ones and also, to appreciate and accommodate the learning needs of the local agriculture and farming situations. The details of the 18 BSMAC Reports are as follows-

1. Basic Sciences
2. Biotechnology & Bioinformatics
3. Plant Sciences
4. Physical Sciences
5. Plant Protection
6. Social Sciences
7. Statistical Sciences
8. Horticulture Sciences
9. Forestry/Agro forestry
10. Agricultural Engineering & Technology
11. Home Science
12. Basic Veterinary Sciences
13. Veterinary Para Clinical Sciences
14. Veterinary Clinical Sciences
15. Livestock Production Technology & Product Management
16. Fisheries
17. Dairy Science & Technology
18. Food Science & Technology