



Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu

Sub: Minutes of 22nd Meeting of Academic Council, SKUAST- Jammu

The minutes of meeting of 22nd Academic Council held on 6th of July, 2021, duly approved by the competent authority is enclosed herewith for necessary action.

[Signature]
Registrar

No: AUJ/Acad/ 2021-22/F-08/ 2445-2504.
Dated: 17-08-2021

Copy to:

- Members of Academic Council _____
- Comptroller, SKUAST- Jammu
- Dy. Registrar, (Secy.) for information.
- SVC for kind information of Hon'ble Vice Chancellor

SKUAST
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Minutes of 22nd Academic Council Meet of SKUAST-Jammu

The 22nd meet of Academic Council of SKUAST Jammu was convened on 6th of July, 2021 at Conference Hall, Main Campus, SKUAST-Jammu, Chatha under the chairmanship of Prof. J.P.Sharma, Hon'ble Vice-Chancellor of the University. The social distancing and other SoPs of Covid-19 pandemic issued by UT of J&K Govt. were followed in the meeting. The list of members and special- invitees who attended the meeting is given in Annexure-I. At the outset, Dr. JagPaul Sharma, Director Research & Registrar Ex-officio, Member Secretary of the Academic council of SKUAST-Jammu welcomed the Chairman, Dr. Mohd. Ashraf Bhat, Expert Member, other members and special- invitees for their participation in the meeting.

The Hon'ble Vice-Chancellor in his opening remarks expressed satisfaction over the progress made by the University in Academics, Research and Extension activities. After seeking the formal permission from Chairman the Member Secretary presented the agenda of the meeting. The following agenda items were deliberated upon:

Agenda Item No. AC (22) 1 : Confirmation of the minutes of 21th Meeting of the Academic Council

The Member Secretary apprised the House that the minutes of 21st meeting of Academic Council held on 25-11-2020 were circulated among the members vide No. AUJ/Acad/20-21/F-08/7068-7128 dated 11-02-2021. The Hon'ble Vice-Chancellor asked the members for comments on the minutes, if any. All the members consented for confirmation of the Minutes of the 21st Academic Council. Accordingly, the House unanimously adopted the following resolution:

"Resolved to the minutes of 21st meeting of Academic Council circulated vide no. No. AUJ/Acad/20-21/F-08/7068-7128 dated 11-02-2021 may be confirmed".

Agenda Item No. AC(22) 2 : Mode of conduct of written Comprehensive Examination for 2nd semester of Academic Session 2020-21.

The Member Secretary informed the House that during the 2nd wave of Covid-19 pandemic it was not possible to conduct Comprehensive Examination physically, therefore, the University took the decision to conduct *Comprehensive Examination through Internal mode (both papers setting and evaluation) and conduct through online mode during the 2nd semester of academic year 2020-21.* Hon'ble Vice-Chancellor in his remarks advised that

such mode of conduct shall prevail till COVID situation improves. Therefore, the House adopted the following resolution:

“Resolved that:

- i. Ratified the decision taken for conduct Comprehensive Examination in Internal mode (both papers setting and evaluation) during the 2nd semester of academic year 2020-21 vide memorandum no. AUJ/Acad/F-01/20-21/474-493 dated 18-05-2021.***
- ii. Conduct of written Comprehensive Examination for 2nd semester of Academic Session 2020-21 may be through online mode instead of offline mode”.***

Agenda Item No. AC(22) 3 : Enhancement of university scholarship/fellowship from ₹1200 to ₹15000/- or ₹18000/-

The Registrar, SKUAST-Jammu informed the House that the Ph.D. scholars of Faculty of Veterinary Sciences and Animal Husbandry has made representation requesting to sanction a suitable monthly stipend of ₹15000/- to ₹18000/- to Ph.D. scholars scoring above 80% (above 8.0 OGPA out of 10 Scale). Dr. S. E. H. Rizvi, Director Education apprised the House that the University has provision of University Merit Scholarship of ₹1200 per month for one Ph.D. scholar in each Division. The House is of the unanimous view that present amount of University Merit scholarship is very low and it needs to be enhanced. As such, adopted the following resolution:

“Resolved that committee may be constituted comprising of Director Education, Registrar and Comptroller for deliberating the issue and to reframe guidelines w.r.t. University merit scholarship amount and implications thereof”.

Agenda Item No. AC (22) 4 : Restructuring of Faculty of Agriculture

The Member Secretary apprised the House that as per Agenda Item No 20 (33) BOM: Institutionalization of B.Sc. (Hons.) Horticulture Programme adopted during 33rd Board of Management with following resolutions:-

- (i) “Resolved that at the first instance, University, as per the recommendation of Vth Deans Committee, institutionalize the

Faculty of Horticulture from its own sources by carving out the allied subjects from the Faculty of Agriculture as per annexure-VIII to this agenda item”.

- (ii) “Resolved further University shall vigorously pursue the matter with the Finance Department, J&K Govt. to expedite the process for the sanctioning of full-fledged required Divisions along with sanctioned staff strength and budget outlay, in the Faculty of Horticulture as per the recommendations of ICAR Vth Deans Committee and proposal already submitted to the concerned authorities”.

After deliberating the matter, following resolution was adopted:

“Resolved that restructure of Faculty of Agriculture into Faculty of Agriculture and Faculty of Horticulture is recommended and support from Faculty of Agriculture to Faculty of Horticulture and vice-versa shall be provided”.

Agenda Item No. AC (22) 5 : Conduct of mid-term, supplementary and semester examination (internally) through online mode in 2nd semester of academic session 2020-21.

Due to Covid-19 pandemic and advisory issued thereof by the Govt. of UT, the teaching work is being conducted through online mode. Prof. J. P. Sharma, Hon’ble Vice-Chancellor advised that the end term examination of pursuing semester be preponed keeping in view the interest of the students in mind. Accordingly, adjustment be made in next academic calendar in such a way that the students appearing in National Level Competitive Examination/ Applying for Admission etc. may not suffer because of delay in Academic Calendar in 2020-21. Dr. H. R. Bhardwaj, Head Division of Surgery proposed that 15 days Internship of B. V. Sc. & A. H may also be preponed. Dr. M. A. Bhat, Expert Member opined for fifteen days preponement of examination.

After deliberation following resolution was adopted:

“Resolved that conduct mid-term, supplementary and semester examination (internally) through online mode for 2nd semester of academic session 2020-21 or till the situation of Covid-19 improves and examination be preponed 15 days”.

Agenda Item No. AC (22) 6 : Admission to Ph.D programme for 2nd

semester of academic session 2020-21.

The Member Secretary apprised the House that the number of seats remains vacant in Ph.D. programme as the candidates who appeared in the entrance examination could not secure the qualifying marks i.e. 50 percent.

Moreso, University ranking/ financial health is directly linked with the no. of students enrolled for pursuing various courses in the University. The House unanimously the following resolution was adopted.

“Resolved:

- i. The admission granted to various Ph.D programmes through SKUAST-J CET (Ph.D) 2020 was approved.***
- ii. The admission granted to various Ph.D programmes for the academic session 2020-21 through ICAR quota was approved.***
- iii. The seats remained unfilled through SKUAST-J CET (Ph.D) 2020 may be re-advertised and may be filled through SKUAST-J CET (Ph.D). The selection is based on the merit of SKUAST-J CET (Ph.D.) & interview i.e. 80 marks of subjective and 10 marks of Research Methodology & 10 marks for Aptitude test***

Agenda Item No. AC (22) 7 : Upgradation of Fisheries Unit into Division of Fisheries

The matter regarding upgradation of Fisheries Unit was deliberated upon and following resolution was adopted:

“Resolved to constitute a committee comprising of Director Education, Registrar, Dean, FoA, Dean, F.V.Sc & A. H to examine the proposal and recommendations of the committee be placed before the Board of PG Studies.”

Agenda Item No. AC (22) 8 : Institutionalization of Masters of Fisheries Science (M.F.Sc.)

- 1. Masters of Fisheries Science (M.F.Sc. in Fisheries Resource Management**
- 2. Masters of Fisheries Science (M.F.Sc. in Aquaculture**

The matter regarding Institutionalization of Masters of fisheries was deliberated upon in the meeting and accordingly the following resolution was adopted.

“Resolved to seek a detailed proposal regarding infrastructure/facilities available for Institutionalization the Masters Programme in Fisheries Science and thus routed through concerned Board of Studies”.

Agenda Item No. AC (22) 9 : Common Academic Regulation and list of approved programmes

The matter regarding the change of nomenclature of different degrees awarded by this University was discussed threadbare and the following regulation was adopted:

“Resolved to adopt the Common Academic Regulation and list of approved programme for M. Sc.& Ph.D. programmes of this University as per Annexure - II”.

Agenda Item No. AC (22) 10 : Enhancement of remuneration for Setting up of Question Papers and Staff engaged on duty for SKUAST-J Common Entrance Test.

The issue regarding enhancement of remuneration for setting up of Question papers and staff engaged on duty for SKUAST-J was discussed and the following resolution was adopted:

“Resolved to ratify the enhancement of remuneration for setting up of Question Papers and staff on duty for SKUAST-J Entrance Test as given below:

S.No.	Items	Existing Rate (in Rs.)	Approved Rate (in Rs.)
1.	Framing of MCQ'S from different subject	₹30/MCQ (Minimum of ₹1000/-)	₹ 50/MCQ (Minimum of ₹ 1500/-)
2.	Duties of Class IV/ Peon/Waterman/Driers/OCC	₹ 200/-	₹ 500/-

Agenda Item No. AC (22) 11 : Enhancement of Rates of Honorarium of Contractual Staff engaged at School of Biotechnology.

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The proposal of Coordinator of School of Biotechnology regarding enhancement of rate of Honorarium of contractual staff viz. young professionals engaged at School of Biotechnology, from existing ₹18000/- was deliberated in the meeting and the following resolutions was adopted:

"Resolved to enhance the rates of honorarium for contractual Staff engaged at School of Biotechnology from existing ₹ 18000/- per month to ₹ 25000/- per month and ₹ 35000/- per month for Young Professional-I and Young Professional – II respectively".

Agenda Item No. AC (22) 12 : Affiliation of Stock Assistant Training Institute, Jammu as Para Veterinary Institute, Jammu with SKUAST-Jammu for Two Years Para Veterinary Diploma Course.

The matter regarding affiliation of Stock Assistant Training Institute, Jammu as Para Veterinary Institute, Jammu with SKUAST-Jammu for two years para Vety. Diploma Course was deliberated upon and agreed in principle to the same with the following resolutions:

"Agreed in Principle to the proposal for affiliation of Stock Assistant Training Institute, Jammu as Para Veterinary Institute, Jammu with SKUAST-Jammu for Two Years Para Veterinary Diploma Course, However, guidelines for the said diploma course be elaborated".

Agenda Item No. AC (22) 13 : Institutionalization of Two years Basic Course in Veterinary and Animal Sciences for class IV employees of SKUAST-Jammu.

The issue regarding Institutionalization of Two years Basic Course in Veterinary and animal Sciences for class IV employees of SKUAST-Jammu was discussed in the meeting and following resolution was adopted:

"Resolved to submit a detailed proposal after working out the modalities for institutionalize Two years Basic Course in Veterinary and Animal Sciences for class IV employees of SKUAST-Jammu."

Agenda Item No. AC (22) 14 : Increasing the Self Financing fee for MBA (ABM) from ₹30,000/Semester to

₹50,000/Semester from academic session 2021-22.

The Head, Division of Agri. Economics and ABM vide No.AUJ/AEABM/21-22/F-01/269 dated 21-06-2021 submitted a proposal indicating that MBA (ABM) has been approved as Self sustainable basis. With the enhancement of rate of consolidated emoluments in favour of Contractual (Teacher) as Academic arrangement basis from existing to ₹25,000/- to ₹45,000/- month in case of Ph. D and ₹20,00 to Rs. 35000/month in case of Master's degree holders have eventually affecting the financial health of MBA (ABM) programme, and has proposed for Increasing the Self Financing fee for MBA (ABM) from ₹30,000/Semester to ₹50,000/Semester from academic session 2021-22. After due deliberations, the following resolution was adopted:

“Resolved to increase the self-financing fee for MBA(ABM) from ₹30,000/semester to ₹50,000/semester from academic session 2021-22”.

Agenda Item No. AC (22) 15 : Bifurcation of Division of Vegetable Science Floriculture & Landscaping Unit, FOA in to Division of Vegetable Science and Division of Floriculture and Landscaping.

The Agenda item regarding Bifurcation of Division of Vegetable Science Floriculture & Landscaping Unit, FOA in to Division of Vegetable Science and Division of Floriculture and Landscaping was deliberated threadbare in the meeting and the following resolution was adopted:

“Resolved to bifurcate the Division of Vegetable Science Floriculture & Landscaping Unit, into Division of Vegetable Science and Division of Floriculture and Landscaping & recommended the same to the Board of Management”.

Agenda Item No. AC (22) 16 : Creation of Staff in Agri-Business Management.

The proposal of Head, Division of Agricultural Economics and ABM regarding creation of staff to run Agri-business was discussed threadbare and the following resolution was adopted:

“Resolved to submit a detailed proposal for creation of new positions for Division of Agril. Economics & ABM to Finance Department, UT of J&K”.

Agenda Item No. AC (22) 17 : Any other Agenda item with the permission of Chair

1. Shifting of RAWE from VIII to VII Semester

The matter regarding shifting of RAWE from VIII to VII semester as per recommendations of 5th Deans Committee Report was deliberated during the meeting and it was resolved to shift RAWE and AIA from VIII to VII Semester.

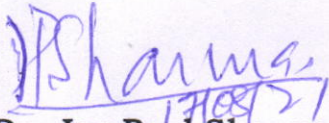
Concluding Remarks:

Mr. Deepak Pandey and Ms. Sneha Chowdhry, Students representatives and Members of Academic Council pointed out that during the prevailing COVID-19 situation, no seminar and conference has been organized. As such, it is difficult for students to submit thesis with one paper published and one and two papers in Conference/work shop. The House unanimously resolved that one paper published and one paper submitted be considered for submission of the thesis till the situation improves.

Dr. Mohd. Altaf Bhat, Expert Member laid emphasized that natural resources are scarce and further shrinking and as such there is extra pressure on the scientific community to manage our natural resources in better and efficient manners. He emphasized for preservation and exchange of germ plasma for variety improvement.

Hon'ble Vice-Chancellor emphasized for the involvement the Ph.D. students in teaching activities as Teaching Assistants as part of New Education Policy. HVC reiterated that Library should remain open 24x7 so that students can make optimum use of Library facilities. Besides, a book shop should be opened so that books are made available to the students at subsidized rates. Besides, it was felt that linkage is the need of the hour for digitalization and connectivity with all Stations/Sub-Stations is vital. He further emphasized for exchange of students/faculty members, Technologies & Research projects besides common act for both the Universities for uniformity for facilitating decision making.

The vote of thanks was presented by Dr. S. E. H. Rizvi, Director Education.


Dr. Jag Paul Sharma
Member Secretary

ANNEXURE-I

22nd Academic Council Meeting attended by following officers:

- | | | |
|-----|--|------------------------|
| 1. | Prof. J.P. Sharma,
Hon'ble Vice-Chancellor | Ex-Officio
Chairman |
| 2. | Dr. S. E. H. Rizvi
Director Education | Member
Member |
| 3. | Dr. Jag Paul Sharma,
Director Research | Member |
| 4. | Prof. S.K Gupta,
Director Extension | Member |
| 5. | Dr. Jag Paul Sharma,
Registrar, | Member
Secretary |
| 6. | Sh. Rajesh Talwar,
Director Planning & Monitoring | Member |
| 7. | Prof. S K Gupta,
I/c University Librarian | Member |
| 8. | Dr. Bikram Singh,
Dean, FoA, Chatha | Member |
| 9. | Dr. S. E. H. Rizvi
Dean, F.B.Sc., Chatha | Member |
| 10. | Prof. M S Bhadwal,
Dean, F.V.Sc. & A.H., R.S.Pura | Member |
| 11. | Dr. R.K. Salgotra
Coordinator School of Biotechnology | Member |
| 12. | Dr. B.C.Sharma
Head, Division of Agronomy | Member |
| 13. | Dr. Rakesh Nanda,
Head, Division of Agril. Extension
Education | Member |
| 14. | Dr. Mohd. Ashraf Bhat
Prof., SKUAST-Kashmir | Expert Member |
| 15. | Dr. Jyoti Kachroo,
Head, Division of Economics and ABM | Member |
| 16. | Dr. Sushil Kumar Gupta
I/c University Examination Cell | Member |
| 17. | Dr. Rajiv Singh
Professor, Medicine | Member |

18.	Dr. L M Gupta, Head, Division of Agro-Forestry	Member
19.	Dr. Sushil Sharma Head, Division of Agril. Engineering	Member
20.	Dr. Anju Bhat, Head, Division of Food Science and Technology	Member
21.	Dr . Amit Jasrotia, Head, Division of Fruit Science	Member
22.	Dr. R. K. Samnotra Head, Division of Vegetable Science & Floriculture	Member
23.	Dr. Vikas Sharma, Head, Division of Soil Science and Agril. Chemistry	Member
24.	Dr. Manish Kumar Sharma, Head, Division of Statistics and Computer Science	Member
25.	Dr. R.K Gupta, Head, Division of Entomology	Member
26.	Dr. S.K Singh, Head, Division of Plant Pathology	Member
27.	Dr. R.K. Gupta, Head, Division of Sericulture	Member
28.	Dr. Jonali Devi, Head Division of Vety. Physiology & Biochemistry	Member
29.	Dr. Nawab Nashiruddullah , Head, Division of Vety. Pathology	Member
30.	Dr. Rajesh Katoch, Head, Division of Vety. Parasitology	Member
31.	Dr. A.K Gupta, Head, Division of Vety. Pharmacology and Toxicology	Member
32.	Dr. M. A. Malik, Head, Division of Vety. Public Health and Epidemiology	Member
33.	Dr. Shalini Suri, Head, Division of Vety. Anatomy	Member
34.	Dr. Sunil Kumar , Head, Division of Vety. Livestock Products Technology	Member

35.	Dr. Jasvinder Singh Soodan, Head, Division of Teaching Veterinary Clinical Complex	Member
36.	Dr. Asma Khan, Head, Division of Livestock Production and Management	Member
37.	Dr. Utsav Sharma, Head, Division of Vety. Gynaecology and Obstetrics.	Member
38.	Dr. H.R.Bhardwaj, Head, Division of Vety. Surgery and Radiology	Member
39.	Dr. R.K. Sharma, Head, Division of Animal Nutrition	Member
40.	Dr. Anish Yadav , Head, Division of Animal Breeding and Genetics	Member
41.	Dr. Mohd Rashid Division of Vety. Microbiology	Member
42.	Dr. Sanjay Guleria, Head Division of Biochemistry	Member
43.	Dr. Gurdev Chand, Head, Division of Plant Physiology	Member
44.	Dr. Moni Gupta, Associate Professor, Division of Biochemistry	Member
45.	Dr. Vikas Abrol, Associate Professor, Division of soil science and Agril. Chemistry	Member
46.	Dr. Neelesh Sharma VMD	Member
47.	Senior Scientist, Research, RARS, Rajouri.	Member
48.	Senior Scientist, ACRA, Dhiansar.	Member
49.	I/c Scientist, RHRS, Bhaderwah.	Member
50.	Senior Scientist, PRSS, Samba.	Member
51.	I/c Scientist, RHRSS, Raya.	Member
52.	Senior Scientist & I/c ACHR Udheywalla.	Member
53.	Head, OFRC, Chatha.	Member
54.	Head, MBRSS, Poonch.	Member

55.	Head, RARS, Udhampur.	Member
56.	Sh. Devinder Sharma Asstt. Registrar (NT/Est.)	Rapporteur
57.	Dr. Parshant Bakshi Assoc. Prof., Fruit Science	Rapporteur
58.	Dr. Kamal Sarma Prof. & Head, VAHEE	Member
59.	Dr. Sahar Masud I/c Fisheries Unit	Member
60.	Ms. Sneha Choudhary, (J-18-D-350-A) Ph.D., Plant Pathology	Member
61.	Mr. Deepak Kumar (J-18-D-327-A) Ph.D. Agronomy	Member

Adoption of new nomenclature and Common Academic Regulations for PG & Ph.D. programmes.

New nomenclature of following discipline:

Discipline	Existing Nomenclature		New Nomenclature	
	M.Sc. (Ag)	Ph.D.	M.Sc.	Ph.D.
Horticultural Sciences Fruit Sciences	M.Sc. Ag. Horticulture (Fruit Science)	Ph.D. Horticulture (Fruit Science)	M.Sc.(Hort) Fruit Science	Ph.D. Fruit Science
Vegetable Sciences	M.Sc. Ag. Horticulture (Vegetable Science)	Ph.D. Horticulture (Vegetable Science)	M.Sc.(Hort) Vegetable Science	Ph.D. Vegetable Science
Floriculture & Landscaping	M.Sc. Ag. Horticulture (Floriculture & Landscaping)	Ph.D. Horticulture (Floriculture & Landscaping)	M.Sc.(Horti) Floriculture & Landscaping	Ph.D. (Floriculture & Landscaping)
Post Harvest Management	M.Sc. (Food Science & Technology)	Ph.D. Food Science & Technology	M.Sc.(Horti) Post Harvest Management	Ph.D. (Post Harvest Management)
Forestry	M.Sc.(Forestry)	Ph.D. Agro-Forestry	M.Sc.(Forestry) Silviculture & Agroforestry	Ph.D. (Silviculture & Agroforestry)
Physical Sciences	M.Sc.Ag (Soil Science & Agricultural Chemistry)	Ph.D. Soil Science & Agricultural Chemistry	M.Sc. (Agri.) Soil Science	Ph.D. Soil Science
Social Sciences	MBA (Agri Business Management)	Ph.D.(Agri Business Management)	M.Sc.(Agri.) Agri-Business Management	Ph.D. Agri-Business Management
	M.Sc. Ag. (Agricultural Extension & Communication)	Ph.D. Agricultural Extension & Communication	M.Sc.(Agri.) Agricultural Extension Education	Ph.D. Agricultural Extension Education
Basic Sciences	M.Sc.(Biochemistry)	Ph.D. Biochemistry	M.Sc.(Agri) Biochemistry	Ph.D. Biochemistry
	M.Sc. (Microbiology)	Ph.D. Microbiology	M.Sc.(Agri) Microbiology	Ph.D. Microbiology
Plant Physiology	M.Sc.(Plant Physiology)	Ph.D.(Plant Physiology)	M.Sc.(Agri) Plant Physiology	Ph.D. Plant Physiology
Biotechnology & Bioinformatics	M.Sc.(Biotechnology)	Ph.D.(Biotechnology)	M.Sc.(Agri) Molecular Biology & Biotechnology	Ph.D. Molecular Biology & Biotechnology
Statistical Sciences	M.Sc.(Statistics)	Ph.D (Statistics)	M.Sc(Ag) Agricultural Statistics	Ph.D (Agricultural Statistics)
Sericulture	M.Sc.(Sericulture)	Ph.D Sericulture	M.Sc(Ag) Sericulture	PhD Sericulture
Agricultural Engineering & Technology	M.Tech. (Soil and Water Engineering)	---	M.Tech. (Soil and Water Conservation Engineering)	---

Common Academic Regulations for PG and PhD programmes

1. Academic Year and Registration

- An academic year shall be normally from July to June of the following calendar year otherwise required under special situations. It shall be divided into two

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academic terms known as semesters. Dates of registration, commencement of instructions, semester end examination and academic calendar shall be developed by the concerned University from time to time and notified accordingly by the Registrar in advance.

- An orientation programme shall be organized by the Director (Education)/Dean PGS for the benefit of newly admitted students immediately after commencement of the semester.
- On successful completion of a semester, the continuing students shall register for subsequent semester on the date specified in the Academic/Semester Calendar or specifically notified separately. Every enrolled student shall be required to register at the beginning of each semester till the completion of his/her degree programmes.

2. Credit requirements

2.1 Framework of the courses

The following nomenclature and Credit Hrs need to be followed while providing the syllabus for all the disciplines

	Masters' Programme	Doctoral Programme
i. Course work		
Major Courses	20	12
Minor Courses	08	06
Supporting Courses	06	05
Common Courses	05	-
Seminar	01	02
ii. Thesis Research	30	75
Total	70	100

Major courses: From the Discipline in which a student takes admission.

Minor courses: From the subjects closely related to a student's major subject

Supporting courses: The subject not related to the major subject. It could be any subject considered relevant for student's research work (such as Statistical Methods, Design of Experiments etc.) or necessary for building his/her overall competence. Common Courses: The following courses (one credit each) will be offered to all students undergoing Master's degree programme.

1. Library and Information Services
2. Technical Writing and Communications Skills
3. Intellectual Property and its management in Agriculture
4. Basic Concepts in Laboratory Techniques
5. Agricultural Research, Research Ethics and Rural Development Programmes

Some of these courses are already in the form of e-courses/MOOCs. The students may be allowed to register these courses/similar courses on these aspects, if available online on SWAYAM or any other platform. If a student has already completed any of these courses during UG, he/she may be permitted to register for other related courses with the prior approval of the HoD/BoS.

2.2 Supporting Courses

The following courses are being offered by various disciplines (The list is only indicative). Based on the requirement, any of the following courses may be opted under the supporting courses. The syllabi of these courses are available in the respective disciplines. If required, the contents may be modified to suit the individual discipline with approval of the concerned BoS.

CODE	COURSE TITLE	CREDITS
STAT 501	MATHEMATICS FOR APPLIED SCIENCES	2+0
STAT 502	STATISTICAL METHODS FOR APPLIED SCIENCES	3+1
STAT 511	EXPERIMENTAL DESIGNS	2+1
STAT 512	BASIC SAMPLING TECHNIQUES	2+1
STAT 521	APPLIED REGRESSION ANALYSIS	2+1
STAT 522	DATA ANALYSIS USING STATISTICAL PACKAGES	2+1
MCA 501	COMPUTERS FUNDAMENTALS AND PROGRAMMING	2+1
MCA 502	COMPUTER ORGANIZATION AND ARCHITECTURE	2+0
MCA 511	INTRODUCTION TO COMMUNICATION TECHNOLOGIES, COMPUTER NETWORKING AND INTERNET	1+1
MCA 512	INFORMATION TECHNOLOGY IN AGRICULTURE	1+1
BIOCHEM 501	BASIC BIOCHEMISTRY	3+1
BIOCHEM 505	TECHNIQUES IN BIOCHEMISTRY	2+2

2.3 Syllabus of Common Courses for PG programmes

LIBRARY AND INFORMATION SERVICES (0+1)

Objective

To equip the library users with skills to trace information from libraries efficiently, to apprise them of information and knowledge resources, to carry out literature survey, to formulate information search strategies, and to use modern tools (Internet, OPAC, search engines etc.) of information search.

Practical

Introduction to library and its services; Role of libraries in education, research and technology transfer; Classification systems and organization of library; Sources of information- Primary Sources, Secondary Sources and Tertiary Sources; Intricacies of abstracting and indexing services (Science Citation Index, Biological Abstracts, Chemical Abstracts, CABI Abstracts, etc.); Tracing information from reference sources; Literature survey; Citation techniques/Preparation of bibliography; Use of CD-ROM Databases, Online Public Access Catalogue and other computerized library services; Use of Internet including search engines and its resources; e-resources access methods.

TECHNICAL WRITING AND COMMUNICATIONS SKILLS (0+1)

Objective

To equip the students/scholars with skills to write dissertations, research papers, etc. To equip the students/scholars with skills to communicate and articulate in English (verbal as well as writing).

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Practical Technical Writing –

Various forms of scientific writings- theses, technical papers, reviews, manuals, etc; Various parts of thesis and research communications (title page, authorship contents page, preface, introduction, review of literature, material and methods, experimental results and discussion); Writing of abstracts, summaries, précis, citations etc.; commonly used abbreviations in the theses and research communications; illustrations, photographs and drawings with suitable captions; pagination, numbering of tables and illustrations; Writing of numbers and dates in scientific write-ups; Editing and proof-reading; Writing of a review article. Communication Skills - Grammar (Tenses, parts of speech, clauses, punctuation marks); Error analysis (Common errors); Concord; Collocation; Phonetic symbols and transcription; Accentual pattern: Weak forms in connected speech: Participation in group discussion: Facing an interview; presentation of scientific papers.

Suggested Readings

1. Chicago Manual of Style. 14th Ed. 1996. Prentice Hall of India.
2. Collins' Cobuild English Dictionary. 1995.
3. Harper Collins. Gordon HM & Walter JA. 1970. Technical Writing. 3rd Ed.
4. Holt, Rinehart & Winston. Hornby AS. 2000. Comp. Oxford Advanced Learner's Dictionary of Current English. 6th Ed. Oxford University Press.
5. James HS. 1994. Handbook for Technical Writing. NTC Business Books.
6. Joseph G. 2000. MLA Handbook for Writers of Research Papers. 5th Ed. Affiliated East-West Press.
7. Mohan K. 2005. Speaking English Effectively. MacMillan India.
8. Richard WS. 1969. Technical Writing.
9. Barnes & Noble. Robert C. (Ed.). 2005. Spoken English: Flourish Your Language.
10. Abhishek. Sethi J & Dhamija PV. 2004. Course in Phonetics and Spoken English. 2nd Ed. Prentice Hall of India.
11. Wren PC & Martin H. 2006. High School English Grammar and Composition. S. Chand & Co.

INTELLECTUAL PROPERTY AND ITS MANAGEMENT IN AGRICULTURE (1+0)

Objective

The main objective of this course is to equip students and stakeholders with knowledge of intellectual property rights (IPR) related protection systems, their significance and use of IPR as a tool for wealth and value creation in a knowledge-based economy.

Theory

Historical perspectives and need for the introduction of Intellectual Property Right regime; TRIPs and various provisions in TRIPs Agreement; Intellectual Property and Intellectual Property Rights (IPR), benefits of securing IPRs; Indian Legislations for the protection of various types of Intellectual Properties; Fundamentals of patents, copyrights, geographical indications, designs and layout, trade secrets and traditional knowledge, trademarks, protection of plant varieties and farmers' rights and biodiversity protection; Protectable subject matters, protection in biotechnology, protection of other biological materials, ownership and period of protection; National Biodiversity protection initiatives; Convention on Biological Diversity; International Treaty on Plant Genetic Resources for Food and Agriculture; Licensing of technologies, Material transfer agreements, Research collaboration Agreement, License Agreement.

Suggested Readings

1. Erbis FH & Maredia K. 1998. Intellectual Property Rights in Agricultural Biotechnology. CABI.
2. Ganguli P. 2001. Intellectual Property Rights: Unleashing Knowledge Economy.

McGraw-Hill.

3. Intellectual Property Rights: Key to New Wealth Generation. 2001. NRDC & Aesthetic Technologies.
4. Ministry of Agriculture, Government of India. 2004. State of Indian Farmer. Vol. V. Technology Generation and IPR Issues. Academic Foundation.
5. Rothschild M & Scott N. (Ed.). 2003. Intellectual Property Rights in Animal Breeding and Genetics. CABI.
6. Saha R. (Ed.). 2006. Intellectual Property Rights in NAM and Other Developing Countries: A Compendium on Law and Policies. Daya Publ. House.

The Indian Acts - Patents Act, 1970 and amendments; Design Act, 2000; Trademarks Act, 1999; The Copyright Act, 1957 and amendments; Layout Design Act, 2000; PPV and FR Act 2001, and Rules 2003; National Biological Diversity Act, 2003.

BASIC CONCEPTS IN LABORATORY TECHNIQUES (0+1)

Objective

To acquaint the students about the basics of commonly used techniques in laboratory.

Practical

Safety measures while in Lab; Handling of chemical substances; Use of burettes, pipettes, measuring cylinders, flasks, separatory funnel, condensers, micropipettes and vaccupets; washing, drying and sterilization of glassware; Drying of solvents/chemicals. Weighing and preparation of solutions of different strengths and their dilution; Handling techniques of solutions; Preparation of different agro-chemical doses in field and pot applications; Preparation of solutions of acids; Neutralisation of acid and bases; Preparation of buffers of different strengths and pH values. Use and handling of microscope, laminar flow, vacuum pumps, viscometer, thermometer, magnetic stirrer, micro-ovens, incubators, sandbath, waterbath, oilbath; Electric wiring and earthing. Preparation of media and methods of sterilization; Seed viability testing, testing of pollen viability; Tissue culture of crop plants; Description of flowering plants in botanical terms in relation to taxonomy

Suggested Readings

1. Furr AK. 2000. CRC Hand Book of Laboratory Safety. CRC Press.
2. Gabb MH & Latchem WE. 1968. A Handbook of Laboratory Solutions. Chemical Publ. Co.

AGRICULTURAL RESEARCH, RESEARCH ETHICS AND RURAL DEVELOPMENT PROGRAMMES (1+0)

Objective

To enlighten the students about the organization and functioning of agricultural research systems at national and international levels, research ethics, and rural development programmes and policies of Government.

Theory

UNIT I History of agriculture in brief; Global agricultural research system: need, scope, opportunities; Role in promoting food security, reducing poverty and protecting the environment; National Agricultural Research Systems (NARS) and Regional Agricultural Research Institutions; Consultative Group on International Agricultural Research (CGIAR): International Agricultural Research Centres (IARC), partnership with NARS, role as a partner in the global

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agricultural research system, strengthening capacities at national and regional levels; International fellowships for scientific mobility. UNIT II Research ethics: research integrity, research safety in laboratories, welfare of animals used in research, computer ethics, standards and problems in research ethics. UNIT III Concept and connotations of rural development, rural development policies and strategies. Rural development programmes: Community Development Programme, Intensive Agricultural District Programme, Special group – Area Specific Programme, Integrated Rural Development Programme (IRDP) Panchayati Raj Institutions, Co- operatives, Voluntary Agencies/Non-Governmental Organisations. Critical evaluation of rural development policies and programmes. Constraints in implementation of rural policies and programmes.

Suggested Readings

1. Bhalla GS & Singh G. 2001. Indian Agriculture - Four Decades of Development. Sage Publ.
2. Punia MS. Manual on International Research and Research Ethics. CCS, Haryana Agricultural University, Hisar.
3. Rao BSV. 2007. Rural Development Strategies and Role of Institutions - Issues, Innovations and Initiatives. Mittal Publ.
4. Singh K.. 1998. Rural Development - Principles, Policies and Management. Sage Publ.

2.4 Mandatory requirement of seminars

- It has been decided to have mandatory seminars one in Masters (One Credit) and two in Doctoral programmes (two Credits).
- The students should be encouraged to make presentations on the latest developments and literature in the area of research topic. This will provide training to the students on preparation for seminar, organizing the work, critical analysis of data and presentation skills.

3. Residential requirements

- The minimum and maximum duration of residential requirement for Masters' Degree and Ph.D. Programmes shall be as follows:

P.G. Degree Programmes	Duration of Residential Requirement	
	Minimum	Maximum
Masters' Degree	2 Academic Years (4 Semesters)	5 Academic Years (10 Semesters)
Ph.D *	3 Academic Years (6 Semesters)	7 Academic Years (14 Semesters)

*Student may be allowed to discontinue temporarily only after completion of course work

In case a student fails to complete the degree programme within the maximum duration of residential requirement, his/her admission shall stand cancelled. The requirement shall be treated as satisfactory in the cases in which a student submits his/her thesis any time during the 4th and 6th semester of his/her residency at the University for Masters' and Ph.D. programme, respectively.

4. Evaluation of course work and comprehensive examination

- For M.Sc., multiple levels of evaluation (First Test, Midterm and Final semester) is desirable. However, it has been decided that the comprehensive examination is redundant for M.Sc students.

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- For PhD, the approach should be research oriented rather than exam oriented. In order to provide the student adequate time to concentrate on the research work and complete the degree in stipulated time, the examination may have to be only semester final. However, the course teacher may be given freedom to evaluate in terms of assignment/seminar/first test.
- For Ph.D., the comprehensive examination (Pre-qualifying examination) is required. As the students are already tested in course examinations, the comprehensive examination should be based on oral examination by an external expert and the evaluation should cover both the research problem and theoretical background to execute the project. This shall assess the aptitude of the student and suitability of the student for the given research topic. The successful completion of comprehensive examination is to obtain the "Satisfactory" remark by the external expert.

5. Advisory System

5.1 Advisory Committee

- There shall be an Advisory Committee for every student consisting of not fewer than three members in the case of a candidate for Masters' degree and four in the case of Ph.D. degree with the Advisor as Chairperson. The Advisory Committee should have representatives from the major and minor fields amongst the members of the Post-graduate faculty accredited for appropriate P.G. level research. However, in those departments where qualified staff exists but due to unavoidable reasons Post-graduate degree programmes are not existing, the staff having Post-graduate teaching experience of two years or more may be included in the Advisory Committee as member representing the minor.
- At any given time, a P.G. teacher shall not be a Chairperson, Advisory Committee (including Master's and Ph.D. programmes) for more than five students.
- The Advisor should convene a meeting of the Advisory Committee at least once in a Semester. The summary record should be communicated to the Head of Department, Dean of the College of concerned, Director (Education)/Dean PGS and Registrar for information.

Advisor/Co-guide/Member, Advisory Committee from other collaborating University/ Institute/ Organization:

- In order to promote quality Post-graduate research and training in cutting edge areas, the University may enter into Memorandum of Understanding (MOU) with other Universities/Institutions for conducting research. While constituting an Advisory Committee of a student, if the Chairperson, Advisory Committee feels the requirement of involving of a faculty member/scientist of such partnering university/Institute/Organization, he/she may send a proposal to this effect to Director (Education)/Dean PGS along with the proposal for consideration of Student's Advisory Committee (SAC).
- The proposed faculty member from the partnering institution can be allowed to act as Chairperson/ Co-guide/Member, SAC, by mutual consent, primarily on the basis of intellectual input and time devoted for carrying out the research work at the particular institution. The faculty member/scientist of partnering institutions in the SAC shall become a temporary faculty member of the University by following the procedure approved by the Academic Council

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Allotment of students to the retiring persons

Normally, retiring person may not be allotted M. Sc. Student if he/she is left with less than 2 years of service and Ph.D. student if left with less than 3 years of service. However, in special circumstances, permission may be obtained from the Director (Education)/Dean PGS, after due recommendation by the concerned Head of the Department.

Changes in the Advisory Committee

- (i) Change of the Chairperson or any member of the Advisory Committee is not ordinarily permissible. However, in exceptional cases, the change may be effected with due approval of the Director of Education/Dean PGS.
- (ii) Normally, staff members of the university on extra ordinary leave or on study leave or who leave the University service will cease to continue to serve as advisors of the Post- graduate students of the University. However, the Director (Education)/Dean PGS may permit them to continue to serve as advisor subject to the following conditions:
 - a) The concerned staff member must be resident in India and if he/she agrees to guide research and must be available for occasional consultations;
 - b) An application is made by the student concerned duly supported by the Advisory Committee;
 - c) In case of a Ph.D. student, he/she must have completed his/her comprehensive examinations and the research work must be well in progress and it is expected that the student will submit the thesis within a year;
 - d) The Head of the Department and the Dean of the College concerned agree to the proposal;
 - e) The staff member, after leaving the University service is granted the status of honorary faculty's membership by the Vice-Chancellor on the recommendation of the Director (Education)/Dean PGS for guiding as Chairperson or Member, Advisory Committee the thesis/theses of the student(s) concerned only.
- (iii) In case the Chairperson/member of a Student's Advisory Committee retires, he/she shall be allowed to continue provided that the student has completed his course work and minimum of 10 research credits and the retiring Chairperson/member stays at the Headquarters of the College, till the thesis is submitted.
- (iv) If the Chairperson/member proceeds on deputation to another organization, he/she may be permitted to guide the student provided his/her new organization is at the Headquarters of the College and his/her organization is willing for the same.
- (v) The change shall be communicated to all concerned by the Head of Department.

6. Evaluation of research work

- It is highly desirable for Ph.D. programme and this should be done annually as an essential part of research evaluation. The Student Advisory Committee shall review the progress of research and scrutinize annual progress reports submitted by the student.

- Midterm evaluation of PhD (to move from JRF to SRF) is a mandatory requirement for all the funding agencies. Hence, the second review of annual progress report need to be done after completion of two years. The successful completion enables the students to become eligible for SRF.

6.1 Prevention of plagiarism

- An institutional mechanism should be in place to check the plagiarism. The students must be made aware that manipulation of the data/plagiarism is punishable with serious consequences.

7. Learning through online courses

- In line with the suggestion in new education policy and the initiatives taken by ICAR and MHRD in the form of e-courses, MOOCs, SWAYAM etc. and also changes taking place globally in respect of learning through online resources it has been agreed to permit the students to enrol for online courses. It is expected that the provision of integrating available online courses with the traditional system of education would provide the students opportunities to improve their employability by imbibing the additional skills and competitive edge.

The Committee recommends the following points while integrating the online courses:

1. Board of Studies (BoS) of each Faculty shall identify available online courses and a student may select from the listed courses. The interested students may provide the details of the on-line courses to the BoS for its consideration.
2. A Postgraduate student may take up to a maximum of 20% credits in a semester through online learning resources.
3. The host institute offering the course does the evaluation and provide marks/grades. The BoS shall develop the conversion formula for calculation of GPA and it may do appropriate checks on delivery methods and do additional evaluations, if needed.

8. Internship during Masters programme

Internship for Development of Entrepreneurship in Agriculture (IDEA)

Currently, a provision of 30 credits for dissertation work in M.Sc./ M.Tech/ M.F.Sc./M.V.Sc. programmes helps practically only those students who aspire to pursue their career in academic/ research. There is hardly any opportunity/ provision under this system to enhance the entrepreneurship skills of those students who could start their own enterprise or have adequate skills to join the industry. Therefore, in order to overcome this gap, an optional internship/ in-plant training (called as IDEA) in lieu of thesis/ research work is recommended which will give the students an opportunity to have a real-time hands-on experience in the industry.

It is envisaged that the internship/ in-plant training would enhance the interactions between academic organizations and the relevant industry. It would not only enable the development of highly learned and skilled manpower to start their own enterprises but also the industry would also be benefitted through this process. This pragmatic approach would definitely result in enhanced partnerships between academia and industry.

The main objectives of the programme:

1. To promote the linkages between academia and industry

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2. To establish newer University – Cooperative R&D together with industry for knowledge creation, research and commercialization
3. Collaboration between Universities and industries through pilot projects
4. To develop methods for knowledge transfer, innovation and networking potential
5. To enhance skill, career development and employability

Following criteria for IDEA will be taken into consideration:

- At any point of time there will not be more than 50% of students who can opt under IDEA
- Major Advisor will be from Academia and Co-advisor (or Advisory Committee member) from industry
- Total credits (30) will be divided into 20 for internship/ in-plant training and 10 for writing the report followed by viva-voce similar to dissertation
- Work place will be industry; however, academic/research support would be provided by the University or both. MoU may be developed accordingly
- The IPR, if any, would be as per the University policy

9. Teaching assistantship

- Teaching assistantship shall be encouraged. This will give the required experience to the students on how to conduct courses, practical classes, evaluation and other related academic matters. This is an important part of PhD training all over the world and it is expected to address the shortage of faculty in many institutions/universities.
- The fulltime doctoral students of the University with or without fellowship may be considered for award of Teaching Assistantships in their respective Departments. The Teaching Assistantship shall be offered only to those doctoral students who have successfully finished their course work. Any consideration for award of Teaching Assistantships must have the consent of the supervisor concerned.
- Teaching Assistantships shall be awarded on semester to semester basis on the recommendation of a screening/ selection committee to be constituted by the Vice Chancellor. All classes and assignments given to the Teaching Assistants, including tutorials, practicals and evaluation work shall be under the supervision of a faculty member who would have otherwise handled the course/ assignment.
- Each Ph.D. student may be allowed to take a maximum of 16 classes in a month to UG/Masters students.
- No additional remuneration shall be paid to the students who are awarded ICAR JRF/SRF. The amount of fellowship to be paid as remuneration to other students (who are receiving any other fellowship or without any fellowships) may be decided by the concerned universities as per the rules in force. However, the total amount of remuneration/ and fellowship shall not exceed the amount being paid as JRF/SRF of ICAR.
- At the end of each term, Teaching Assistants shall be given a certificate by the concerned Head of the Department, countersigned by the School Dean, specifying the nature and load of assignments completed.

10. Registration of project personnel (SRF/RA) for PhD

- A provision may be made to enable the project personnel (SRF/RA) to register for PhD. However, this can be done only if they are selected based on some selection process such as walk-in-interview. The prior approval of PI of the project is mandatory to consider the application of project personnel (SRF/RA) for PhD admission



- The candidates need to submit the declaration stating that the project work shall not be compromised because of PhD programme. Further, in order to justify the project work and Ph.D. programme, the number of course credits should not be more than 8 in a semester for the project personnel (SRF/RA) who intend to register for Ph.D.

11. Compliance with the National Education Policy-2020

While implementing the course structure and contents recommended by the BSMA Committees, the Higher Education Institutions (HEIs) are required to comply with the provisions of National Education Policy-2020, especially the following aspects:

- Given the 21st century requirements, quality higher education must aim to develop good, thoughtful, well-rounded, and creative individuals. It must enable an individual to study one or more specialized areas of interest at a deep level, and also develop character, ethical and Constitutional values, intellectual curiosity, scientific temper, creativity, spirit of service, and 21st century capabilities across a range of disciplines including sciences, social sciences, arts, humanities, languages, as well as professional, technical, and vocational subjects. A quality higher education must enable personal accomplishment and enlightenment, constructive public engagement, and productive contribution to the society. It must prepare students for more meaningful and satisfying lives and work roles and enable economic independence (9.1.1. of NEP-2020).
- At the societal level, higher education must enable the development of an enlightened, socially conscious, knowledgeable, and skilled nation that can find and implement robust solutions to its own problems. Higher education must form the basis for knowledge creation and innovation thereby contributing to a growing national economy. The purpose of quality higher education is, therefore, more than the creation of greater opportunities for individual employment. It represents the key to more vibrant, socially engaged, cooperative communities and a happier, cohesive, cultured, productive, innovative, progressive, and prosperous nation (9.1.3. of NEP-2020).
- Flexibility in curriculum and novel and engaging course options will be on offer to students, in addition to rigorous specialization in a subject or subjects. This will be encouraged by increased faculty and institutional autonomy in setting curricula. Pedagogy will have an increased emphasis on communication, discussion, debate, research, and opportunities for cross-disciplinary and interdisciplinary thinking (11.6 of NEP-2020).
- As part of a holistic education, students at all HEIs will be provided with opportunities for internships with local industry, businesses, artists, crafts persons, etc., as well as research internships with faculty and researchers at their own or other HEIs/ research institutions, so that students may actively engage with the practical side of their learning and, as a by-product, further improve their employability (11.8 of NEP-2020).
- HEIs will focus on research and innovation by setting up start-up incubation centres; technology development centres; centres in frontier areas of research; greater industry- academic linkages; and interdisciplinary research including humanities and social sciences research (11.12. of NEP-2020).
- Effective learning requires a comprehensive approach that involves appropriate curriculum, engaging pedagogy, continuous formative assessment, and adequate student support. The curriculum must be interesting and relevant, and updated regularly to align with the latest knowledge requirements and to meet specified learning outcomes. High- quality pedagogy is then necessary to successfully impart the curricular material to students; pedagogical practices determine the learning experiences that are provided to students, thus directly influencing learning outcomes. The assessment methods must be scientific, designed to continuously improve

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learning and test the application of knowledge. Last but not least, the development of capacities that promote student wellness such as fitness, good health, psycho-social well-being, and sound ethical grounding are also critical for high-quality learning (12.1. of NEP-2020).

Definitions of academic terms

Chairperson means a teacher of the major discipline proposed by the Head of Department through the Dean of the College and duly approved by the Director of Education/Dean Post Graduate Studies (or as per the procedure laid down in the concerned University regulations) to act as the Chairperson of the Advisory Committee and also to guide the student on academic issues.

Course means a unit of instruction in a discipline carrying a specific number and credits to be covered in a semester as laid down in detail in the syllabus of a degree programme.

Credit means the unit of work load per week for a particular course in theory and/or practical. One credit of theory means one class of one clock hour duration and one credit practical means one class of minimum two clock hours of laboratory work per week.

Credit load of a student refers to the total number of credits of all the courses he/she registers during a particular semester.

Grade point (GP) of a course is a measure of performance. It is obtained by dividing the per cent mark secured by a student in a particular course by 10, expressed and rounded off to second decimal place.

Credit point (CP) refers to the Grade point multiplied by the number of credits of the course, expressed and rounded off to second decimal place.

Grade point average (GPA) means the total credit point earned by a student divided by total number of credits of all the courses registered in a semester, expressed and rounded off to second decimal place.

Cumulative Grade Point Average (CGPA) means the total credit points earned by a student divided by the total number of credits registered by the student until the end of a semester (all completed semesters), expressed and rounded off to second decimal place.

Overall Grade Point Average (OGPA) means the total credit points earned by a student in the entire degree programme divided by the total number of credits required for the P.G. degree, expressed and rounded off to second decimal place.

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