1.1 .1 Curriculum Design and Development

Curriculum development/adopted have reference to the local/ national/ regional/global development needs with learning objectives including programme outcomes, programme specific outcomes and course outcomes of the entire programme offered by the university.

Response:

The global and national needs, which also include local needs, consist of poverty alleviation, elimination of gender and social inequity, prevention of environment degradation, ensuring food security and focussing on issues of agriculture, health and nutrition, environmental sustainability, climate change, water and sanitation and quality education. Unemployment and economical backwardness of the state can be taken as two specific local problems .Trained, skilled, qualified and educated individuals are required to address these concerns in different capacities. Different programmes of the University have reference to these requirements reflected in the Programme outcomes , Programme Specific Outcomes and Course outcomes.

Programme Outcome: At the end of the Post Graduate Programmes students develop aptitude/ skill/ ability/ capacity for the following:

PO1: Employment

-employment in various capacities in different organizations

- self-employment in certain areas

PO2 : Research

- research aptitude

PO3: Critical thinking:

 - clear and rational thought

- identifying the logical connection between ideas, their relevance and importance

- constructing and assessing ideas

 - recognizing inconsistencies in arguments and ways of thinking

PO4: Social Awareness and Interaction:-

- understanding of social circumstances and problems, both of the local and national dimensions

-active participation in governmental and non governmental interventions for solving social problems

PO5: Political Consciousness:

- consciousness of political processes

- actively participating in all such processes adopted by the University, as witnessed in Patna University Student Union Elections

PO6: Ethics and Responsible Citizenship:

- Perception and appreciation of diverse value systems

- Understanding the moral and ethical dimensions of one's decisions

- Taking responsibility for decisions taken
- Becoming responsible, informed and committed citizen

PO7: Women Empowerment and Inclusive Education:

The University promotes gender equity and inclusive education since the reservation policy of the state government is strictly followed, and about 60% students are girls. The women students are

- equipped with required skill and qualification for research, employment and for taking on diverse responsibilities
- trained to develop social awareness and sense of responsibility
- able to take informed decisions
- empowered

PO8: Environment and Sustainability:

- Understanding of the issues related to environment and sustainable development

Programme Specific Outcome

S.	Programme name	Programme C	Programme Specific Outcome
1	LL.M (Law)	L-L-M	PSO1:produces legal experts, good academicians, legal professionals
			PSO2: equips students with knowledge of computer and other scientific developr
2	Master of Education		PSO1:produces academicians and trained teachers
			PSO2: prepares students for research in the field of Education
			PSP3: produces experts on multi-dimensional aspects related to education
3	M.Com	M-COM	PSO1: To impart knowledge among the students of the Department.
			PSO2:To enhance skill among the students of the Department.
			PSO3:To develop culture and values among the students of the Department.
			PSO3:To promote leadership quality among the students of the Department.
			PSO4:To prepare students to be able to address the need of the Society.
			PSO5:To motivate students for participating in the extra-curricular activities at the
			PSO6:To develop an Innovation and creative mind among the students.
			PSO7:To enhance the decision-making ability among the students.
			PSO8:To focus on Research and Research related activities among the research sc
			PSO9:To enrich the knowledge and also prepare them to be competent as a Pro world.
			PSO10:To make the students employable in the competitive and challenging job r
4	Master of Business A	M-B-A	PSO1: To provide opportunities to students of different disciplines to join th capabilities in their careers.
			PSO2: To develop core competency among the management students to m scenario in the fields of Industry and Trade as well as ever increasing Service

			PSO3: To provide an excellent managerial competence among the students fo organisation in Liberalised world Economies. PSO4: To make students well equipped with the broad spectrum of knowle resource so that they may be more professional and specialised in their respec PSO5: To create a Think-Tank of excellent managerial inputs for present and PSO6: To provide managerial inputs to the Small Sectors (SSI Units) s professional in managing their units.
5	M.A. in Personnel and Industrial Relatio		PSO1: able to understand Industrial Business, Economic, Social Po society. PSO2: able to address the challenges with suitable responses for the iden PSO3: are equipped to engage in the management of Industrial organizations, government organization, skill development. PSO4: develop professional approach, H.R. Practitioners, legal practition PSO5:develop entrepreneurial abilities to linked with 'Make in India', 'S PSO6: are prepared for career in different organizations such as Industry finance, marketing, business development, Agriculture and other comme PSO7:students become professionally equipped, skilled, knowledg organizations, society community and government.
	Master of Library Science	M-LIS	PSO1:students understand the systems and technologies that facilitate serve the diverse needs of users PSO2: students become proficient in the theory and application of sk technology environments, in any chosen area of specialization PSO3: students receive critical grounding in theoretical perspectives t knowledge that inform their professional practices including research, o PSO4: students become innovative, ethical problem-solvers who ar collaboration, and reflection
6	M.Sc. Mathematics		
	M C A		PSO1: provides thorough and sound background in theoretical and skill oriented technologies PSO2: enables students to do research in recent interdisciplinary areas PSO3: develops entrepreneurial skills among the students
	M.Sc. Botany		PSO1: creates better understanding of the subjects of plant diversity, c biochemistry , taxonomy etc for economic use. PSO2: leads to development of ideas and concepts from the acquired k sustainable development, conservation and preservation of endangered PSO3: develops understanding of application of bacteria, cyanobacteri

			for human, social and economic welfare PSO4: leads to research and teaching and preparation for various comp service.
	M.Sc. Biotechnology		PSO1: to impart advanced knowledge on modern biology PSO2: curriculum fosters problem-solving and critical thinking skills that prepare PSO3: insights on the key research areas of Advances in Microbial, Plant and En PSO4: enables the students to apply their learning and develop end results. PSO5: programme focuses on career-oriented subjects like Microbial Biotechno culture, Animal Biotechnology, Enzyme Technology and Bioinformatics.
7	M.Sc. Zoology		PSO1: Provides advanced, comprehensive and holistic knowledge about animal s PSO2:Opportunity for research both in animal sciences and medical science; PSO3:Application in the biological and medical research, environmental biology PSO4:Generates employability in various industries related to biological cultivati
8	M.Sc. Geology		PSO1: Produces Earth Scientists and trained personnel for teaching and research PSO2: Equips students with technological tools, skills and geological data an studies PSO3: Producing versatile geologists who understand the significance of sust Earth resources.
9	M.Sc.(Chemistry)	MSCHE	PSO1: develops original research abilities PSO2: promotes entrepreneurship among students
10	M.Sc. Physics		After the completion of their M.Sc. Physics students have: PSO1: strong analytical abilities. PSO2: qualities needed for teaching of Science and doing research. PSO3: knowledge of theoretical as well as experimental areas of Physics. PSO4:capabilities to generate self-employment. PSO5: computational Skill and ICT development.
11	M.Sc. Biochemistry		
12	M.Sc.(Botany)	MSBOT	➤ **PSO1:Academic:** Better understanding of the subjects of plant diversity biochemistry , taxonomy etc for economic use. ➤ **PSO2:Research** : Development of ideas and concepts from the acquired sustainable development, conservation and preservation of endangered ➤ **PSO3:Application – Environment , social, Scientific :**Understand applica plant and plant metabolites for human, social and economic welfare ➤ **PSO4:Employability:** Research and teaching and preparation for various forest service.
13	M.Sc.Biotechnology		

1 4	M.Sc./M.A. Statistics		PSO1: as an applied science, Statistics is used in all disciplines such as Engin Economics etc. PSO2: research in Population Science and in Mathematical Statistics PSO3: generates employment opportunities in Statistical Service, NSSO,CSO, S etc.
1 5	M.A.(History)	MAHIS	PSO1: expands horizon of historical understanding and promotes academic under PSO2: provides advice to students on how to take competitive exams, face interv
	M.A. Women's Studies		PSO1: expands horizon of historical understanding and promotes academic under PSO2: provides advice to students on how to take competitive exams, face interv
1 6	M.A. Psychology		PSO1: Utility driven subject PSO2 provides research driven knowledge about human behaviour PSO3: sensitizes students to psycho social issues and provides inputs in psycho for solving problems of daily life
1 7	M.A.(Economics)	MAECO	PSO1: enhances academic paradigms of the students PSO2: updates research skills to enable students to undertake research in socia relevant areas PSO3: creates employability in academics, banking, insurance, administration, cc PSO4: trains students as better and responsible citizens of society
1 8	M.A. (Ancient Indian History&Archaeol ogy)	MAAIH	PSO1: promotes interest in research in the subject PSO2: provides knowledge of excavation and research PSO3: provides knowledge of Museum and Tourism PSO4: raises consciousness for protection and promotion of heritage
1 9	M.A. in Social Work(MSW)		PSO: prepares skilled personnel to work in different capacities related to social and non governmental sectors
2 0	M.A. (Home Science)	MAHSC	PSO1: as an interdisciplinary subject, it equips students with theoretical and pr homes. PSO2: equips students for research in commercial food service industry and healt PSO3: has application in the field of human environment and society, nutrition ar PSO4: provides employment opportunity in hospitals, dietetics, counselling, extension education and community development programmes.
2 1	M.A. Political Science		PSO1: prepares for research in different branches of the subject PSO2: inspires active citizenship PSO3: trains students in life skills
2 2	M.A. (Personnel Management and Industrial Relations)		PSO1: provides specialized education and training to the students for jobs in a welfare, Govt. Labour departments, welfare agencies, career in trade unions PSO2: develops competence for innovative research PSO3: develops communicative, interpersonal and leadership skills, lifelong le environment and commitment to nation and humanity
	M.A.in Rural Studies (Rural Management and Development) MARST		PSO1:To understand Rural and Industrial Business, Agro based busines cultural framework of the Rural society. PSO2:To address the challenges with suitable responses for the identified PSO3:Engage in the management of organization (Public & priva government organization, skill development. PSO4:To develop professional approach, Rural H.R. Practitioners, le development personnel & social welfare field. PSO5:To develop entrepreneurial abilities to linked with 'Make in I

			'Entrepreneur related to rural sectors' and 'Health Sector'.
			PSO6:Different careers options in different field of organizations such as
			Finance, NGO's, Micro-finance, marketing, business development, Agr
			well as social welfare sectors and other commercial organization.
			PSO6:To make students, professionally equipped skilled knowledgea
			profession, organizations, society community and government.
23	M.A.(Geography)	MAGEO	PSO1: produces skilled personnel for employment in diverse fields such as Clin analysis, Cartography, Water and Soil Conservation, Urban and Rural Planning Disaster management, Environmental Consultancy etc. PSO2: develops qualities needed for teaching of Science and doing research.
24	M.A. Sociology		PSO1: provides conceptual clarity to students PSO2: equips students for research on contemporary social problems PSO3: acquaints them with the application of the tools of sociology
			PSO4: prepares students for employment in many fields like NGO sector, Ru sector etc.
25	M.A.(Philosophy)	MAPHI	PSO1: produces informed students with knowledge of logic, different approache philosophical thought . PSO2: develops aptitude for research in the field of Philosophy PSO3: inculcates a synergy between spirituality and character formation which e
26	M.A.(English)	MAENG	PSO1: prepares students for employment as teachers and academics PSO2: provides knowledge and skill required for research in the field of English PSO3:ensures holistic development of students through participation in multiple PSO4: sensitizes students to the issues of environment protection and sustainabi and non-human ecology. PSO5: various curricular and co curricular activities conducted develop commun among the students
27	M.A. (Urdu)	MAURD	PSO1: prepares students for employment as teachers, academics and translators PSO2: provides knowledge and skill required for research in the field of Urdu lit
28	M.A.(Sanskrit)	MASAN	PSO1: prepares students for employment as teachers and academics PSO2: provides knowledge and skill required for research in the field of Sanskrit PSO3: promotes spoken Sanskrit to equip students for employment in multi medi
29	M.A. Hindi		PSO1: prepares students for employment as teachers and academics PSO2: prepares students for employment as journalists PSO3: provides knowledge and skill required for research in the field of Hindi lit
30	MAster in Journalism and		PSO1: contributes in creation of healthy academic environment PSO2: contributes to development of society oriented processes

	Mass Communication(MAJMS)		PSO3: promotes use of environment related, social and scientific processes and a PSO4: equips Journalism and Mass Communication students with knowledge and
3 1	M.A. (Bengali)	MABEN	PSO1: prepares students for employment as teachers and academics PSO2: provides knowledge and skill required for research in the field of Bengali
3 2	M.A. (Maithili)	MAMAI	PSO1: prepares students for employment as teachers, academics, translators and i PSO2: provides knowledge of Maithili for use as a subject in UPSC and BPSC co PSO3: provides knowledge and skill required for research in the field of Maithili
3 3	M.A.Arabi		PSO1: makes students proficient in Arabic as an international link language PSO2: imparts knowledge on functional Arabic for translation, broadcasting and
3 4	M.A. (Persian)	MAPER	PSO1: trains students in Modern Persian linguistic and literary skills for employ etc.
3 5	M.A. (Music)	MAMUS	PSO1: prepares students for academics, archival collection, artistic production et PSO2: introduces to systematic investigation into the sources and materials to a and folk music. PSO3:
3 6			
3 6	PG Diploma in Clinical Psychology		PSO1: students gain knowledge and experience to work as clinical psychologist PSO2: acquire a scientific and evidence based approach to clinical psychology PSO3: equipped with knowledge of clinical psychology PSO4: understand the training, education and professional issues in clinical psych PSO4:are able to apply the knowledge in personality development, mental hea neuropsychology.
3 7	PG Diploma in Women's Studies		PSO1:encourages academic understanding of the subject PSO2: expands the understanding of Women's issue PSO4: provides fresh ground for research.
3 8	P G Diploma in Public Administration		PSO1: provides knowledge of the Indian Political system PSO2: develops research aptitude in areas related to various aspects of the Indian PSO3: is applicable in social and earth sciences PSO4: builds capacity for employment in administration and NGO Management

Course Outcome of one selected course of the programmes

SN	Programme	Course	Outcome
1	M.Ed	C.C.8 Innovative Teaching-Learning	CO1:has academic significance CO2: provides area for research CO3: has social applications
2	LLM		
3	M.Com.	MC 302 Corporate Tax Planning and Management	CO1: makes students conversant with the concept of corporate tax planning and Indian Tax laws CO2: makes students aware of their implications for corporate management.
4	MBA	MB 4M3 Strategic Marketing	CO1:emphasises on the concept and importance of strategic marketing, CO2: identifying the market structures

			and trends as well as the role of Sales Promotion in competitive marketing CO3: develop understanding of Brand Management and its positioning.
	M.A. in Personnel Management and Industrial Relations(PMIR)	CC-5 Industrial Relations	CO1: provides knowledge of the emerging pattern of industrial relations in the globalised world CO2: provides knowledge of the role of the actors of industrial relations and its various dynamics CO3: deals with futuristic way of handling the above CO4:l creates employability in the industrial word CO5: develops academic pursuits CO6: provides motivation for research.
	M.A.IN RURAL STUDIES (RURAL MANAGEMENT AND DEVELOPMENT)	CC-6 **Rural Development Programmes**	CO1: designed to study the various rural development programmes runs by the centre and the state Govt CO2: o develop industry, business and services in the rural areas and create conducive living conditions in the rural areas CO3: paper explore a vast area of research and innovation CO4: creates employability in the rural economy.

	M.Sc. (Botany)	MBOTEC-1 Applied microbiology and Plant Pathology	CO1: Equips students for industrial application of microbial diversity. CO2: provides study of causal organism of plant pathogens and their control.
	M.Sc. Biotechnology	MSBTCCC-11 Recombinant DNA Technology	CO1: Endows students with strong theoretical knowledge of this technology CO2:In conjunction with the practicals in molecular biology & genetic engineering, the students should be able to take up biological research CO3: in conjunction with molecular biology and genetic engineering students can get placement in the relevant biotech industry CO4:understand different types of intellectual property rights in general and protection of products derived from biotechnology research and issues related to application and obtaining patents. CO5:gain knowledge of biosafety and risk assessment of products derived from recombinant DNA research and environment release of genetically modified organisms, national and international regulations. CO6: Understand ethical aspects related to biological, biomedical, health care and biotechnology research.
5	M.Sc. Zoology	ZOOM-202 Vertebrate Endocrinology	CO1:provides knowledge and develops understanding in the area of hormones CO2: is related to Medical Endocrinology CO3: Employability in medical

			diagnostic labs
6	M.Sc. (Geology)	MGELCC-5 Geomorphology, Remote Sensing & GIS	CO1:provides comprehensive understanding of land forms CO2: provides knowledge of aerial photography techniques CO3: application in RS and GIS. CO4:importance of GPS
7	M.SC. (Chemistry)	302 Environmental, Analytical & Bioinorganic Chemistry	CO1: creates understanding of environments, pollutions, Analytical Chemistry and Bio inorganic Chemistry CO2: instructs in identification of pollutants in air, water and soil used by industries. CO3: provides knowledge of separation techniques as Chromotography, Thermal analysis CO4:has application in areas dealing with role of metal ions in biological process and of TG ,DTA in Thermal analysis CO5: generates employability in Environmental Research Centre and Industries.
8	M.Sc. Biochemistry	BCH-401 Biotechnology & Bioinformatics	CO1: creates understanding of basics of gene cloning CO2: develops better understanding of molecular processes CO3: generates better understanding and possible improvement of various environmental as well as social problems CO4: has use in various scientific research laboratories
9	M.SC. Physics	MPHYCC–9 Lab –II	At the end of this course, students will be able to CO1: understand the basic idea about finding solutions using computational methods basics. CO2: learn how to interpret and analyze data visually, both during and after computation. CO3: gain an ability to apply physical principles to real-world problems. CO4: acquire a working knowledge of basic research methodologies, data analysis and interpretation. CO5: Realize the impact of physics in the global/societal context.
	M C A	CS-42	CO1:To provide conceptual as well as advance knowledge of Software

		Software Engineering	Engineering. CO2:Research in application design model. CO3:Wide applications in Software development and life cycle. CO4: Employability in software sectors and business world.
10	M.Sc./M.A. Statistics	401 Stochastic Process	CO1: understanding of real life characteristics as a function of time CO2: application in almost all disciplines
11	M A (History)	HIS-M-202 History of Bihar (from the earliest time to 1947 A.D.)	CO1: is important for research CO2:is very useful for examinees of State Civil Services examination
	M.A. Women's Studies	WS-M-101	CO1: expands the understanding of the issues involved CO2: encourages research in the concerned areas
12	M.A. Psychology	Psy M 402 Occupational Psychology	CO1: creates understanding of human behaviour in work setting CO2: generates employability in industrial setting for assistance in selection, placement, performance appraisal and incentive determination CO3: generates employability in industrial setting for addressing problems of accidents, fatigue, morale, motivation, job satisfaction.
13	M.A. (Economics)	Eco-M 301 Indian Economy	CO1: provides understanding of Indian economy. CO2: creates employability in Civil services, RBI etc.
14	M.A. (Ancient Indian History& Archaeology)	103 Ancient Indian Epigraphy	CO1: creates interest in research in the subject area CO2: creates employability in the fields of Tourism, Museology and Historical Studies
15	M A (Sociology)	Soc-M-302 Indian Demography	CO1: provides knowledge of population as asset and liability CO2: provides challenging areas for research
16	M.A. in Social	MSW:303	CO1: provides professional knowledge

		Work(MSW)	Social Welfare, Administration and Social Action	in the relevant areas covered by the course CO2: helps in improving the delivery system of various schemes.
17	M.A. Home Science		HSc M 101 Advanced Nutrition	CO1: provides knowledge of contamination of food and of procedures for minimization and prevention CO2: equips students for research in the area CO3: provides skill for analysis and assessment of food quality and production CO4: provides skill, information and knowledge for employment in various sectors like hospitals, nursing homes, clinics, cafeteria etc.
18	M.A. Political Science		POL-M-204 Research Methods in Political Science	CO1: provides knowledge and skill required for research in the field of Political Science
19	M.A.(Philosophy)		201 Human Rights and Feminism	CO1: provides knowledge required for research in the field of gender and human rights CO2: sensitizes students towards iniquities,
20	M.A. English		403 Linguistics and Language teaching	CO1: receive input on language teaching CO2:gain insight into the scientific approach to language CO3: develop understanding of the relation between literature and society
21	M.A.(Urdu)		304 Bihar ka Adbi Dabistan	CO1:students gain knowledge and regarding the role of Bihar in the development of Urdu language and literature and CO2: students receive necessary skill in documenting local Urdu literature.
22	M.A. (Sanskrit)		202 Indian Philosophy and Grammar	CO1: gain knowledge required for research in the field of philosophy and grammar
23	M.A. Hindi		403 Patrakaarita evam jan sanchaar	CO1: receive skills in Hindi journalism
	Master in Journalism and Mass Communication(MJMC)		EC-1 Rural and Environment and Journalism	CO1: equips students with required skill and knowledge for promotion of rural and environment related issues in journalism.
24	M.A.(Bengali)		204	CO1: gain knowledge regarding

		Bihar o Jharkhander Bangla Sahitya	regional Bengali literature CO2: are sensitized towards research in this area
25	M.A.(Maithili)	Mai(401) Anuvad Vigyan aa Paschatya Aalochana Sidhant	CO1: gain knowledge of translation CO2: receive skill in translating Maithili texts
26	M.A. Arabi	201 Functional Arabic	CO1: receive information and skill for employment in various organisations involving Arabic as an international language
27	M.A.(Persian)	303 Grammar, Prosody and Translation	CO1: students are equipped with knowledge of bilingual translation involving Persian
28	M.A. (Music)	CC10 Aesthetic &Folk Music	CO1:receive knowledge of folk songs, folk instruments and folk poets. skill CO2: receive knowledge and skill for working in the field of Music therapy CO3: receive skill for employment in multi-media industry, music critic, programme anchor, advertizing industry and cultural wing of government departments.
	P.G. Diploma in Industrial Safety Management	CC-4 **Safety Management & Organisation**	CO1: provide the basic knowledge and understanding of the subject CO2: application, research in business as well as social organization CO3: to improve the skill areas of communication, training and motivation in safety CO4: to improve the skill areas of communication, training and motivation in safety CO5: help both safety managers and potential safety managers develop good behaviour skills CO6: explore academic, develop professionalism CO7: will create employability in the

			industrial world.
29	PG Diploma in Clinical Psychology	CC-6 Social and Community Psychology	CO1: students obtain advanced understanding of relevant concepts, issues and methods in social and community psychology CO2: receive skill to apply the same in social and institutional frameworks.
30	PG Diploma in Women's Studies	WS-M-201 Violence Against Women & Declining Sex Ratio	CO1: expands the understanding of the issues involved CO2: encourages research in the concerned areas
	P G Diploma in Public Administration	Paper-IV Social Administration and Public Finanace	CO1: provides knowledge and awareness in the field of family planning and population education CO2: provides information about sex-ratio and knowledge of Public Finance CO3: develops awareness of issues related toAIDS, including prevention CO4: develops capacity for employment in the area of Public and Private Administration