

MVS GOVERNMENT ARTS & SCIENCE COLLEGE (A), MAHABUBNAGAR

DEPARTMENT OF COMMERCE

B.Com. COMMERCE (Computer Application)

COMMERCE Curriculum Mapping

Program specific course	Course Name (COMMERCE) (Computer Application)	PLO#1	PLO#2	PLO#3	PLO#4	PLO#5	PLO#6	PLO#7	PLO#8
		Effective communication, decision making, problem-solving	Computer skills	Recent trends in organisations and industries	Soft skills	Applications in business and e- commerce	Foundational and theoretical knowledge	Acquire practical skills	Research work
B. Com. (Computer Application)	Financial Accounting-I	1	1	1	1	1	1	1	1
	Business organization and Management	1	1	1	1	1	1	1	1
	Fundamentals of Information technology	3	2	3	3	3	3	3	2
	Financial Accounting-II	1	1	1	1	1	1	1	1
	Business Laws								
	Programming with C& C++	3	3	3	3	3	3	3	2
SEC 1	Principles of Insurance	2	2	1	2	1	2		
SEC 2	Practice of Life Insurance	2	2	1	2	1	2		
	Advanced Accounting	2	2	2	2	2	2	2	2
	Business statistics-I	2	2	2	2	2	2	2	2
	Relational Database Management System	2	3	2	3	3	3	3	2
SEC-III	Practice of General Insurance	2	2	2	2	2	2	2	2
SEC-IV	Regulations of Insurance Business	2	2	2	2	2	2	2	2
	Income tax	2	2	2	2	2	2	2	2
	Business statistics-II	2	2	2	2	2	2	2	2
	Web Technologies	3	3	3	3	3	3	3	2
GE	Business Economics	3	3	3	3	3	3	3	3
	Cost Accounting	3	3	3	3	3	3	3	3
	Computerized Accounting	3	3	3	3	3	3	3	3
	Management Information System	3	3	3	3	3	3	3	3
PR	Research Methodology and Project report	3	3	3	3	3	3	3	3
	Cost Control and Management Accounting	3	3	3	3	3	3	3	3
	Theory and Practice of GST	3	3	3	3	3	3	3	3
	Multimedia systems	3	3	3	3	3	3	3	3

1= Beginner; 2= Intermediate; 3= Advanced

It indicates Skill development

It indicates Entrepreneurship

	Business Law	3	3	3	3	3	3	3	3
	Banking Theory & Practice	3	3	3	3	3	3	3	3
	Auditing	3	3	3	3	3	3	3	3
	Computerized Accounting	3	3	3	3	3	3	3	3
	Accounting standards	3	3	3	3	3	3	3	3
SEC-4	Regulation of Insurance Business	3	3	3	3	3	3	3	3
GE-2	Sectors of Indian Economy	3	3	3	3	3	3	3	3
	Theory and practice of GST	3	3	3	3	3	3	3	3
	Company law	3	3	3	3	3	3	3	3
	Managerial Accounting	3	3	3	3	3	3	3	3
	Commerce Lab	3	3	3	3	3	3	3	3
	Financial Institutions & Markets	3	3	3	3	3	3	3	3
	Advanced Corporate Accounting	3	3	3	3	3	3	3	3

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SEC 3	Business Correspondence and Communication	2	2	2	2	2	2	2	2	2
SEC 4	Start Up Management	2	2	2	2	2	2	2	2	2
	Business Law and Ethics	2	2	2	2	2	2	2	2	2
	Market research	2	2	2	2	2	2	2	2	2
	Management Science	2	2	2	2	2	2	2	2	2
	Brand Management (M)	3	3	3	3	3	3	3	3	3
	Retail Management (M)	3	3	3	3	3	3	3	3	3
	Customer Relationship Management (M)	3	3	3	3	3	3	3	3	3
	Buyer Behaviour (M)	3	3	3	3	3	3	3	3	3
	Advertising and Sales Promotion (M)	3	3	3	3	3	3	3	3	3
	Rural Marketing (M)	3	3	3	3	3	3	3	3	3
GE 1	Office Management	3	3	3	3	3	3	3	3	3

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MVS GOVERNMENT ARTS & SCIENCE COLLEGE (A), MAHABUBNAGAR

DEPARTMENT OF BIOTECHNOLOGY

B.Sc. BIOTECHNOLOGY

BIOTECHNOLOGY Curriculum Mapping

Program specific course	Course Name (BIOTECHNOLOGY)	PLO#1 Scientific Knowledge	PLO#2 Problem Analysis	PLO#3 Conduct investigations of complex problems	PLO#4 Usage of modern tools and techniques	PLO#5 Biotechnology and society	PLO#6 Environment and sustainability	PLO#7 Professional Ethics	PLO#8 . Work efficiency	PLO#9 Communication skills	PLO#10 Lifelong Learning
Life science (B.Sc. , BTBZ , BTZC)	Fundamentals of Biotechnology	2	2	2	2	1	2	2	1	2	2
	Fundamentals of Biotechnology	2	2	1	2	2	2	2	2	1	2
	BIOLOGICAL CHEMISTRY	2	2	2	2	2	1	2	1	1	2
	BIOLOGICAL CHEMISTRY	2	2	2	2	2	2	2	1	1	2
	MOLECULAR BIOLOGY	2	2	2	2	1	1	2	2	1	2
	GENETIC ENGINEERING AND IMMUNOLOGY	2	3	2	2	3	3	2	3	2	3
	APPLICATION OF BIOTECHNOLOGY	2	2	2	2	2	2	2	2	2	2
	CELL BIOLOGY & Genetics	2	2	2	2	1	2	2	1	2	2
	NUCLEIC ACID AND BIOINFORMSTICS	2	2	1	2	2	2	2	2	1	2
	BIOLOGICAL CHEMISTRY	2	2	1	1	2	2	2	1	2	1
	MICROBIOLOGY AND IMMUNOLOGY	2	2	2	2	2	2	2	1	2	2
	MOLECULAR BIOLOGY AND Rdna technology	2	2	2	2	2	2	3	2	2	2
	Plant biotechnology	3	3	3	2	3	3	3	3	3	3
	Microbial technology	2	2	2	2	2	2	2	2	2	2
	Environmental biotechnology	2	2	2	2	2	2	2	2	2	1
SEC 1	Industrial Fermentation	2	2	2	2	2	2	2	2	2	2
SEC 2	Immunological techniques	2	2	2	2	2	2	2	2	2	2
SEC 3	Molecular markers in Plant breeding	2	2	2	2	2	2	2	2	2	2
SEC 4	Drug Designing	2	2	2	2	2	2	2	2	2	2
GE 1	Basics in Biotechnology	2	2	2	2	2	2	2	2	2	2

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MVS GOVERNMENT ARTS & SCIENCE COLLEGE (A), MAHABUBNAGAR

DEPARTMENT OF BIOCHEMISTRY

B.Sc. Biochemistry

Biochemistry Curriculum Mapping

Program specific course	Course Name (Biochemistry)	PLO#1 Communicate the fundamental concepts	PLO#2 Apply the knowledge and expertise in industries	PLO#3 Impart practical skills and scientific knowledge	PLO#4 Develop problem solving ability	PLO#5 Betterment of the society
Life science (B.Sc.)	Chemistry of bio molecules	1	3	3		2
	Chemistry of Nucleic Acids & Biochemical techniques	1	3	3	2	2
SEC 1	Rules in chemistry Laboratory & Laboratory Reagents	1	3	3	3	3
SEC 2	Remedial methods for pollution, Drinking water & soil fertility Standards	1	3	3	3	3
	Bio energetics & Biological Oxidations & Enzymology	2	3	3		2
SEC 3	Materials & their Applications	1	3	3		2
SEC 4	Cosmetics & Food processing	1	3	3		3
	Intermediary metabolism	2	3	3		2
GE 1	Physiology & introduction to Biochemistry	2	3	3		2
	Physiology & clinical Biochemistry	2	3	3	3	3
	Molecular Biology	1	3	3		2
	Nutrition & immunology	2	3	3	2	2
	Microbiology & r-DNA technology	2	3	3	3	3

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MVS GOVERNMENT ARTS & SCIENCE COLLEGE (A), MAHABUBNAGAR

DEPARTMENT OF BOTANY

B.Sc. Botany

Botany Curriculum Mapping

Program specific course	Course Name (BOTANY)	PLO#1	PLO#2	PLO#3	PLO#4	PLO#5	PLO#6	PLO#7	PLO#8	PLO#9	PLO#10	PLO#11
		Transferable skills	Scientific Knowledge	Problem Analysis	Design/development of solutions	Modern tool usage	The Botanist and society	Environment and sustainability	Ethics	Individual and team work	Communication	Life-long learning
Life science (B.Sc., B.Z.C.)	Microbial Diversity and Lower Plants (BS 104)	1	3		1	2	1	2		2	2	1
	Gymnosperms, Taxonomy of Angiosperms and Ecology (BS 204)	3	3	2	1	2	1	2	2	3	2	1
SEC 1	Nursery and Gardening (BS 301)	3	2	2	2	1	1	2	2	3	2	2
SEC 2	Biofertilizer and Organic Farming (BS 302)	2	3	2	1	1		3	3	2	1	1
	Plant Anatomy and Embryology (BS 304)	2	3	1		1			1	1		1
SEC 3	Greenhouse Technology. (BS 401)	1	2	1		1		1		2	1	1
SEC 4	Mushroom Culture Technology (BS 402)	3	3	3	2	2	1	2	1	2		2
	Cell Biology, Genetics and Plant Physiology (BS 404)	2	2	2		1		1		2		2
GE 1	Industrial Microbiology (BS 501)	1	1			1		1	1	1		1
	Biodiversity & conservation (BS 502),	3	3	2		2	1	2	2	2	1	2
	Economic Botany	2	2			1				1		1
	Seed Technology	2	2			1		1	1	2		1
	Project (BS 601)	1	1	1	1	1		1	1	1	1	1
	Tissue Culture and Biotechnology (BS 602)	2	2	1		1		1	1	2	1	1
	Analytical Techniques in Plant Sciences (BS 602)	1	1	1	1	1		1		1	1	1

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Chemistry Curriculum Mapping

Program specific course	Course Name (Chemistry)	PLO#1 Professional Value & Ethics	PLO#2 Upgrade skills towards independent and lifelong learning.	PLO#3 Communicate basic concepts of Chemistry with examples	PLO#4 Acquire basic knowledge in chemical principles	PLO#5 develop instrumentation and laboratory techniques	PLO#6 Problem analysis	PLO#7 Scientific knowledge	PLO#8 . Critical thinking
Physical & Life science (B.Sc.)	Chemistry-I	2	2	2	2	2	2	3	2
	Chemistry-II	2	2	2	2	2	2	3	2
SEC 1	Rules in chemistry Laboratory & Laboratory Reagents	1	2	2	2	2	2	3	1
SEC 2	Remedial methods for pollution, Drinking water & soil fertility Standards	1	2	2	3	2	2	3	1
	Chemistry III	2	3	2	3	2	2	3	2
SEC 3	Materials & their Applications	2	2	2	2	2	2	3	1
SEC 4	Cosmetics & Food processing	2	2	2	2	2	2	3	1
	Chemistry IV	2	3	2	3	2	2	3	2
GE 1	Pharmaceuticals	1	2	2	3	2	2	2	2
	Chemistry V	2	3	2	3	2	3	3	2
	Chemistry VI	2	3	2	3	2	3	3	3
	Chemistry VII	2	3	2	3	2	3	3	2
	Chemistry VIII	2	3	2	3	2	3	3	3

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DEPARTMENT OF COMPUTER APPLICATION

B.Sc. COMPUTER APPLICATION

COMPUTER APPLICATION Curriculum Mapping

Program specific course	Course Name (COMPUTER APPLICATION)	PLO#1 Effective communication, decision making, problem-solving	PLO#2 Computer skills	PLO#3 Recent trends in organisations and industries	PLO#4 Soft skills	PLO#5 Applications in business and e- commerce	PLO#6 Foundational and theoretical knowledge	PLO#7 Acquire practical skills	PLO#8 Research work
B.Sc.	Programming in C	2	2	3	3	2	3	2	3
	Programming in C++	2	2	3	3	2	3	2	3
SEC 1	Python-I	3	2	2	3	2	2	2	3
SEC 2	Sci Lab-I	3	2	2	3	2	2	2	3
	Relational Data Base Management Systems	2	2	2	3	3	2	3	3
SEC 3	Python-II	3	3	3	3	3	3	3	3
SEC 4	Sci Lab-II	3	3	3	3	3	3	3	3
	Multimedia Systems	3	3	3	3	3	3	3	3
GE 1	Information technologies	2	2	2	2	2	2	2	2
	Programming In Java	3	3	3	3	3	3	3	3
	Web technologies	3	3	3	3	3	3	3	3

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COMPUTER SCIENCE Curriculum Mapping

Program specific course	Course Name (COMPUTER SCIENCE)	PLO#1 Understanding and knowledge of the basic theory of Computer Science and Information Technology	PLO#2 Analyze new situations	PLO#3 To take up industry challenges	PLO#4 Real Life Problem solving skill	PLO#5 Current Techniques & Tools	PLO#6 Research & Development for Professionals	PLO#7 knowledge and transferable skills to new/unfamiliar contexts	PLO#8. Lifelong Learning	PLO#9 Evaluation methodologies to Computer science
B.Sc.	Programming in C	2	2	3	3	2	3	2	3	3
	Programming in C++	2	2	3	3	2	3	2	3	3
SEC 1	Sci lab-I	3	2	2	3	2	2	2	3	3
SEC 2	Sci lab-II	3	2	2	3	2	2	2	3	3
	Data structures	3	2	2	3	2	2	3	3	3
SEC 3	Python-I	3	3	3	3	3	3	3	3	3
SEC 4	Python-II	3	3	3	3	3	3	3	3	3
	Database Management System	2	2	2	3	3	2	3	3	3
GE-I	Information technologies -I	2	2	2	3	2	2	2	3	3
	Programming in JAVA	3	3	3	3	3	3	3	3	3
	Software Engineering	2	3	3	3	3	3	3	3	3
	Computer Networks	3	3	3	3	3	3	3	3	3
	Web Technologies	3	3	3	3	3	3	3	3	3

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DEPARTMENT OF ECONOMICS

B.A. ECONOMICS

ECONOMICS Curriculum Mapping

Program specific course	Course Name (ECONOMICS)	PLO#1 Realization of human values.	PLO#2 Sense of social service.	PLO#3 Responsible and dutiful citizen.	PLO#4 Critical temper	PLO#5 Creative ability.	PLO#6 Developing research knowledge
B.A. (Arts)	Micro Economics	2	3	2	1	3	3
	Macro Economics	3	3	2		3	3
SEC 1	Gender Sensitization	2	2	2		2	2
SEC 2	Environmental Studies	2	2	2		2	2
	Micro Economics 2	3	3	3		3	3
SEC 3	Rural development-1	2	2	2	1	2	2
SEC 4	Rural development-2	2	2	2	1	2	2
	Public Economics	3	3	2		3	3
GE 1	Sectors of Indian Economy	2	3	2		3	3
	Development Economics	3	3	3	1	3	3
	Indian Economy	3	3	3	1	3	3
	International Economics	3	3	3		3	3
	Industrial Economics	3	3	3		3	3

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**MVS GOVERNMENT ARTS & SCIENCE COLLEGE (A),
MAHABUBNAGAR**

DEPARTMENT OF ENGLISH

B.Sc., B.A., B.Com. ENGLISH

ENGLISH Curriculum Mapping

Program specific course	Course Name (ENGLISH)	PLO#1 Develop LSRW skills	PLO#2 write formal and Informal letters, applications and reports etc	PLO#3 Communication skills	PLO#4 Build vocabulary and knowledge of literature	PLO#5 Critical, theoretical and philosophical approaches
(B.Sc. B.A. B.Com)	Paper I	1	1	1	1	1
	Paper II	2	2	2	2	2
	Paper III	3	3	3	3	3
	Paper IV	3	3	3	3	3

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**MVS GOVERNMENT ARTS & SCIENCE COLLEGE (A),
MAHABUBNAGAR**

DEPARTMENT OF HINDI

B.Sc., B.A., B.Com. HINDI

HINDI Curriculum Mapping

Program specific course	Course Name (HINDI)	PLO#1 Develop LSRW skill	PLO#2 write formal and Informal letters, applications	PLO#3 Communication skills	PLO#4 Build vocabulary and knowledge of literature	PLO#5 Critical, theoretical and philosophical approaches
(B.Sc. B.A. B.Com)		1	2	1	2	1
		1	2	1	2	1
		2	2	2	3	2
		2	2	3	3	3

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MVS GOVERNMENT ARTS & SCIENCE COLLEGE (A), MAHABUBNAGAR

DEPARTMENT OF HISTORY

B.A. HISTORY

HISTORY Curriculum Mapping

Program specific course	Course Name (HISTORY)	PLO#1 knowledge in the field of social sciences, literature and humanities	PLO#2 Tradition and thinking.	PLO#3 human values	PLO#4 Problem analysis	PLO#5 Critical thinking	PLO#6 Responsible citizen	PLO#7 Analyze relationship between the past and the present	PLO#8 . Develop practical skills
B.A. (Arts)	History of India (From earliest times to c. 700CE)	3	3	3	1		3	3	1
	History of India (From earliest times to c. 700-1526CE)	3	3	3		1	3	3	
SEC 1	Historical , Cultural Tourism in India	3	3	3	1		3	3	1
SEC 2	Archives & Museum	3	3	3		1	3	3	1
	History of India (From earliest times to c. 1526-1857 CE)	3	3	3	1		3	3	1
SEC 3	South Indian art & Architecture	3	3	3	3	3	3	3	2
SEC 4	North Indian art & Architecture	3	3	3	3	3	3	3	2
	History of India (From earliest times to c. 1858- 1964 CE)	3	3	3	1	1	3	3	1
GE 1	Indian National movement	2	3	3			3	3	
	World History (1500-1871)	3	3	3			3	3	
	History & Culture of Modern Telangana (earliest time to 1900)	3	3	3	1	1	3	3	1
	World History (1871-1960)	3	3	3	3	3	3	3	
	History & Culture of Modern Telangana (1900-2014)	3	3	3		1	3	3	1

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Course Outcomes & Programme
Outcomes Mapping

Name of Program- B.Sc

Programme Outcomes (PO) of B.Sc (Mathematics) :

- PO 1: Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.
- PO 2: A student should get a relational understanding of mathematical concepts and concerned structures, and should be able to follow the patterns involved, mathematical reasoning.
- PO 3 : Ability to analyze a problem, identify and define the computing requirements, which may be appropriate to its solution.
- PO 4: Introduction to various courses like group theory, ring theory, field theory, metric spaces, number theory.
- PO 5: Enhancing students' overall development and to equip them with mathematical modeling abilities, problem solving skills, creative talent and power of communication necessary for various kinds of employment.
- PO 6: Ability to pursue advanced studies and research in pure and applied mathematical science.

Programme Specific Outcomes (PSO) of B.Sc (Mathematics) :

- PSO 1: Knowledge
- PSO 2: Problem Skills .
- PSO 3: Critical and Analytical Thinking Skills.
- PSO 4: Communication and Presentation Skills.
- PSO 5: Know when there is a need for information, to be able to identify, locate, evaluate, and effectively use that information for the issue or problem at hand.
- PSO 6: Formulate and develop mathematical arguments in a logical manner.
- PSO 7: Acquire good knowledge and understanding in advanced areas of mathematics and statistics, chosen by the student from the given courses.
- PSO 8: Understand, formulate and use quantitative models arising in social science, Business and other contexts.
- PSO 9: Teamwork Skills.
- PSO 10: Information Technology/Techniques
 - PSO 11: Ethics and Social Responsibility

Course outcomes (CO) of B.Sc (Mathematics)

Course	Course Name	Course Out Come
CO1	BS 101: Differential and Integral Calculus	By the time students complete the course they realize wide ranging applications of the subject
CO2	BS 201: Differential Equations	After learning the course the students will be equipped with the various tools to solve few types differential equations that arise in several branches of science.
CO3	BS 301: Real Analysis	After the completion of the course students will be in a position to appreciate beauty and applicability of the course.
CO4	SEC I Theory of Equations	By using the concepts learnt the students are expected to solve some of the polynomial equations.
CO5	BS 401: Algebra	On successful completion of the course students will be able to recognize algebraic structures that arise in matrix algebra, linear algebra and will be able to apply the skills learnt in understanding various such subjects.
CO6	SEC II: Logic and Sets	After the completion of the course students appreciate its importance in the development of computer science.
CO7	BS 501: Linear Algebra	After completion this course students appreciate its interdisciplinary nature.
CO8	SEC III: Number Theory	Student uses the knowledge acquired solving some divisor problems.
CO9	GE I: Basic Mathematics	Students apply their knowledge in competitive examination for securing job.

**DEPARTMENT OF MATHEMATICS,
MVS GOVT. ARTS & SCIENCE COLLEGE(A), MAHBUBNAGAR**

CO10	BS 601/A: Numerical Analysis	Students realize the importance of the subject in solving some problems of algebra and calculus.
CO11	BS 601/B Integral Transforms	Students apply their knowledge to solve some problems on special functions and Differential Equations by using the Integral Transforms.
CO12	BS 601/C Analytical Solid Geometry	Students understand the beautiful interplay between algebra and geometry
CO13	SEC IV Vector Calculus	Students realize the way vector calculus is used to addresses some of the problems of physics.

For Mapping

3- Fully Met (For a particular CO, if there are ≥ 4 Key elements in a particular PO met)

2-Partially Met (For a particular CO, if there are ≥ 2 Key elements)

1-Poorly Met (For a particular CO, if there is 1 key element in a particular PO met)

NA-Not Applicable

**DEPARTMENT OF MATHEMATICS,
MVS GOVT. ARTS & SCIENCE COLLEGE(A), MAHBUBNAGAR**

B.Sc PO, CO & PSCO

S.No	Programme Outcomes	PO1	PO2	PO3	PO4	PO5	PO5
	Course Outcomes						
1.	CO1	3	3	3	3	3	3
2.	CO2	3	3	3	3	3	3
3.	CO3	3	3	3	3	3	3
4.	CO4	3	3	2.5	2.5	2.5	2.5
5.	CO5	3	2.5	2.5	2.5	2.5	2.5
6.	CO6	3	3	3	3	3	3
7.	CO7	3	2.5	2.5	3	2.5	2.5
8.	CO8	3	2.5	2.5	2.5	2.5	3
9.	CO9	3	3	3	3	3	3
10.	CO10	3	3	3	3	3	3
11.	CO11	3	3	3	3	3	3
12.	CO12	3	3	3	3	3	3
13.	CO13	3	3	3	3	3	3
Average		3	2.88	2.84	2.88	2.84	2.88

MVS GOVERNMENT ARTS & SCIENCE COLLEGE (A), MAHABUBNAGAR

DEPARTMENT OF MICROBIOLOGY

B.Sc. MICROBIOLOGY

MICROBIOLOGY Curriculum Mapping

Program specific course	Course Name (MICROBIOLOGY)	PLO#1 Basic techniques related to screening, isolation and cultivation of microorganisms from various sources	PLO#2 Understand microorganisms and their relationship with the	PLO#3 Produce and analyze the microbial products at laboratory level	PLO#4 Conduct the basic research with microorganisms	PLO#5 Analysis skill	PLO#6 Knowledge and understanding the concepts of Microbes	PLO#7 Explore the scientific literature	PLO#8 . Implement the knowledge in industry
Life science (B.Sc.)	General Microbiology-I	2	3	1	2	1	2	1	1
	General Microbiology-II	2	3	1	2	1	2	2	2
SEC 1	Hematology	1	2		1	2	1	1	1
SEC 2	Food Adulteration	2	2	1	1	3	1	1	1
	Microbial physiology & Enzymology	2	1	1	2	1	2	1	2
SEC 3	Mushroom cultivation	3	2	2	3		2	1	3
SEC 4	Hospital waste management	2	1	1	1	1	2	1	2
	Microbial Genetics & Molecular Biology	2	2	2	2	2	1	1	1
GE 1	Microbiology & human health	1	3	1	1	1	2	1	1
	Applied Microbiology	2	2	2	2	2	2	1	2
	Pharmaceutical Microbiology	1	1	1	2	2	1	1	1
	Medical microbiology	2	2	2	1	2	2	1	2
	Food Microbiology	2	1	2	1	1	2	1	2

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Program specific course	Course Name (PHYSICS)	PLO#1	PLO#2	PLO#3	PLO#4	PLO#5	PLO#6	PLO#7	PLO#8	PLO#9
		Disciplinary knowledge and skills	Skilled communication	Critical thinker and problem solver	Sense of inquiry	Team player/worker	Skilled project manager	Digitally Efficient	Ethical awareness / reasoning	Life-long learning
Physical Science (B.Sc.)	Mechanics	2	1	2	2			1	1	
	Thermal Physics	2	2	3	3		2	1	2	2
SEC 1	Renewable energy & Harvesting energy	2	1	1	3	1	2	2	3	3
SEC 2	Weather Forecasting	2	1	2	2	2	2	2	3	3
	Electro Magnetic Theory	2		2	2	1		2	2	3
SEC 3	Physics workshop skills	1	2	3	3	3	3	3	3	3
SEC 4	Environmental Physics	1	2	3	3	2	2	2	3	3
	Optics	2	3	2	2	1	2	1	1	2
GE 1	Electrical & Electronics Appliances	2	3	3	2	2	3	3	3	2
	Modern physics	2	2	1	2	1	1	1	1	2
	Electronics	1	2	2	3	1	1	2	2	3
	Applied Optics	2	2	2	3	2	2	2	2	3

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MVS GOVERNMENT ARTS & SCIENCE COLLEGE (A), MAHABUBNAGAR

DEPARTMENT OF POLITICAL SCIENCE

B.A. POLITICAL SCIENCE

POLITICAL SCIENCE Curriculum Mapping

Program specific course	Course Name (POLITICAL SCIENCE)	PLO#1	PLO#2	PLO#3	PLO#4	PLO#5	PLO#6	PLO#7	PLO#8	PLO#9	PLO#10
		Understand the world, their country, their society	Understand different disciplines	Critical Thinking	Communicate effectively in English	Individual and team responsibility	Realization of human values	Sense of social service.	Responsible and dutiful citizen.	Critical temper	Creative ability.
B.A. (Arts)	Understanding Political theory	1	2	3	3	2	2	3	3	1	3
	Western Political thought	1	2	3	2	3	2	3	2	1	2
SEC 1	Gender Sensitization	2	3	3	2	3	3	3	3	1	3
SEC 2	Environmental Studies	3	3	3	3	3	3	3	3	1	3
	Basics of Indian Constitution & Citizenship	1	2	3	3	3	3	3	3	1	2
SEC 3	Rural Development	3	3	2	3	3	2	3	2	1	3
SEC 4	Legislative practice & Procedure	2	3	2	2	3	2	3	2		2
	Indian Government & Politics	3	3	3	3	3	3	3	3	1	3
GE 1	Entrepreneur Development	3	2	2	1	2	3	3	3	1	3
	Ancient & Medieval Political thought	2	3	3	2	3	3	3	3	1	3
	International relation 19 & 20 th century I	1	2	1	2	3	2	3	3	1	3
	Wesetrn & Indian Political thought	3	3	2	3	2	3	3	2	3	2
	International relation 19 th & 20 th century II	3	1	3	2	3	2	3	3	1	3

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MVS GOVERNMENT ARTS & SCIENCE COLLEGE (A), MAHABUBNAGAR

DEPARTMENT OF PUBLIC ADMINISTRATION

B.A. PUBLIC ADMINISTRATION

PUBLIC ADMINISTRATION Curriculum Mapping

Program specific course	Course Name (PUBLIC ADMINISTRATION)	PLO#1 Develop The conceptual foundation	PLO#2 Establish the ability to function effectively in organizational structures	PLO#3 Ethical Standards of Managerial Practice	PLO#4 understand the basic Concepts	PLO#5 Research skill	PLO#6 Communicative skill
B.A. (Arts)	Basics of Public administration	2	1	2	3	2	2
	Development Dynamic & Energy Trends	3	3	2	2	3	2
SEC 1	Gender Sensitization	3	2	3	3	2	3
SEC 2	Environmental Studies	3	2	3	3	2	3
	Union Administration	3	3	3	3	2	3
SEC 3	Rural Development	2	3	2	3	2	3
SEC 4	Public office Management	3	3	3	3	3	3
	State Administration & Emerging issues	3	3	3	3	3	3
GE 1	Good Governance	2	2	3	2	3	3
	Human Resource Management	3	3	3	3	3	3
	Finance & Material management	3	3	3	3	3	3
	Rural Local Governance	2	2	3	3	3	2
	Urban Local Governance	2	2	2	3	3	2

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Department of Statistics

M.V. S. Govt. Arts and Science College (A),
Mahabubnagar

Course Outcome & Programme Outcomes
Mapping

Name of The Program: B.Sc(Statistics)

Programme Outcomes (PO) of B.Sc (Statistics) :

PO1:	Knowledge: Understand the basic concepts, fundamental principles, and the scientific theories related to various scientific phenomena and their relevancies in the day-to-day life.
PO2:	Problem analysis: Analysed the given scientific data critically and systematically and the ability to draw the objective conclusions.
PO3:	Programming Skills: Serve as the Programmers or the Software Engineers with the sound knowledge of practical and theoretical concepts for developing software.
PO4:	Communication skills: Developed various communication skills such as reading, listening, speaking, etc., which will help in expressing ideas and views clearly and effectively.
PO5:	Instrumentation: Acquired the skills in handling scientific instruments, planning and performing in laboratory experiments.
PO6:	Environment and sustainability: Developed flair by participating in various social and cultural activities voluntarily, in order to spread knowledge, creating awareness about the social evils, blind faith, etc.
PO7:	Ethics: Imbued ethical, moral and social values in personal and social life leading to highly cultured and civilized personality.
PO8:	Life-long learning: Developed scientific outlook not only with respect to science subjects but also in all aspects related to life.

Programme Specific Outcomes (PSO) of B.Sc (Statistics) :

PSO.01	Ability to apply knowledge of logical computing relevant and appropriate to the domain.
PSO.02	Ability to design, implement and evaluate computer-based system, process, component.
PSO.03	Focus on statistical science and its application
PSO.04	Capability to design and conduct experiments, as well as analyze and interpret data
PSO.05	Equip students with analytic and problem solving skills.
PSO.06	Ability to develop aptitude skills and apply mathematical methods and ideas in any area of inquiry.

Course outcomes (CO) of B.Sc (Mathematics)

Course	Course Name	Course Out Come
CO1	DSC 2A: Descriptive Statistics and Probability	By the time students c Organize, manage and present data, Analyze statistical data using measures of central tendency, dispersion and location, Translate real-world problems into probability models.
CO2	DSC-2B - Probability Distributions	After learning the course the students will be identify the characteristics of different discrete, continuous distributions and identify the type of statistical situation to which different distributions can be applied.
CO3	DSC-2C - Statistical Methods	After the completion of the course students will be in a position to appreciate beauty and applicability of the course.
CO4	BSS SEC I - Concepts of Sequences of Random Variables	The students will aquire knowledge about continuous random variables and their characteristics such as expectation, variance and higher order moments.
CO5	DSC 2D: Inference	On successful completion of the course students will be able knowledge about order statistics and associated distributions, concept about non-parametric method and some important non-parametric tests.
CO6	BSS SEC II - Statistics for Psychologyand Education	After the completion of the course students appreciate its information about various Statistical organisations in India and their functions for societal developments.

COs

CO7	DSC 2E - Sampling Theory, Time series, Index Numbers and Demand Analysis	After completion this course students introduced to various statistical sampling schemes such as simple, stratified, systematic and pps sampling, an idea of conducting the sample surveys and selecting appropriate sampling techniques, knowledge about comparing various sampling techniques
CO8	DSE 2E - Statistical Quality Control and Reliability	After completion this course students understand single and double sampling inspection plans, OC and ASN functions. Students get introduced to notion of censored data, Type I, Type II and random censoring schemes, compute MLEs of exponential distribution for complete and censored data, est reliability hypotheses for exponential and Weibull distributions, evaluate system reliability for series, parallel, k out of n systems.
CO9	DSE 2F - Bio-Statistics - I	After completion this course students get the ethics, principles and conduct of clinical trial experiments, various data management and data collection systems for a good clinical trial practice.
CO10	DSE 2G - Actuarial Statistics - I	After completion this course students get the Risk models: models for individual claims and their sums, finding distribution of aggregate claims, compound distributions and their applications, calculation of various payments from life tables using principle of equivalence, net premiums, prospective and retrospective provisions/reserves, real illustrations for the concepts mentioned above through laboratory assignments.
CO11	BSSSEC III Big Data Analysis	After completion of this course student will learn Technologies, Process and Methods: The Evolution of Analytic Scalability, The Evolution of Analytic Process, The Evolution of Analytic Tools and Methods.
CO12	BSSGE-I - Basic Statistics	After completion of the course Students will know Origin, Importance and growth of Statistics, Collection and tabulation of data and Students apply their knowledge in competitive examination for securing job.

COs

CO13	DSC 2F: Design of Experiments, Vital Statistics, Official Statistics and Business Forecasting	Students realize the importance of the subject in understand the basic terms used in design of experiments, to use appropriate experimental designs to analyze the experimental data and to give statistical interpretation of the experimental results obtained.
CO14	DSE 2H: Operations Research	Students apply their knowledge to use of duality to solve a LPP, obtaining solution of a transportation problem by North West corner method, Matrix Minima method, Vogel's method, Hungarian Method for solving assignment problems, networking problem using shortest route.
CO15	DSE 2I - Bio-Statistics - II	After completion this course students get the Survival functions and hazard rates, Life tables, failure rates, mean residual life and their elementary properties, Ageing classes and their properties, Bathtub failure rate. Estimation of survival function.
CO16	DSE 2J - Actuarial Statistics - II	After completion this course students get the Varying Life annuities, recursions and complete annuities- immediate and apportioable annuities
CO17	BSSSEC IV - Statistical Techniques in Data Mining	Students realize the Prepare and finalize research report on some real life situations.
CO18	BSSGE-II - Basic Statistics-2	After completion of the course Students will know Origin, Importance and growth of Statistics, Discrete probability distributions: Bernoulli, Binomial, Poisson, with real life examples.

B.Sc Statistics PO & CO Mapping

Programme Outcomes	PO1	PO2	PO3	PO4	PO5	PO5	PO4	PO5	PO5
Course Outcomes									
CO1	3	3	3	3	3	3	3	3	3
CO2	3	2	3	3	3	3	3	3	3
CO3	3	3	3	3	2	2	3	2	2
CO4	3	3	3	3	3	3	3	3	3
CO5	3	2	3	2	3	1	3	2	1
CO6	3	3	3	3	3	3	3	3	3
CO7	3	3	3	3	3	3	3	3	3
CO8	2	3	2	3	2	3	2	3	3
CO9	3	2	2	2	1	2	2	1	2
CO10	3	3	1	2	2	2	2	2	2
CO11	2	2	3	2	1	2	2	1	2
CO12	2	2	2	3	3	3	3	3	3
CO13	3	3	3	3	3	3	3	3	3
CO14	2	2	2	1	2	1	1	2	1
CO15	1	2	2	2	2	2	2	2	2
CO16	2	1	1	2	2	2	2	2	2
CO17	2	2	2	2	2	1	2	2	1
CO18	2	2	2	2	2	2	2	2	2
Average	2.50	2.39	2.39	2.44	2.33	2.28	2.44	2.33	2.28

Mapping

3- Fully Met (For a particular CO, if there are ≥ 4 Key elements in a particular PO met)

2-Partially Met (For a particular CO, if there are ≥ 2 Key elements)

1-Poorly Met (For a particular CO, if there is 1 key element in a particular PO met)

NA-Not Applicable

**MVS GOVERNMENT ARTS & SCIENCE COLLEGE (A),
MAHABUBNAGAR**

DEPARTMENT OF TELUGU

B.Sc., B.A., B.Com. TELUGU

Telugu Curriculum Mapping

Program specific course	Course Name (TELUGU)	PLO#1 Develop LSRW skill	PLO#2 write formal and Informal letters, applications	PLO#3 Communication skills	PLO#4 Build vocabulary and knowledge of literature	PLO#5 Critical, theoretical and philosophical approaches
(B.Sc. B.A. B.Com)	Paper I	1	1	1	1	1
	Paper II	2	2	2	2	2
	Paper III	3	3	3	3	3
	Paper IV	3	3	3	3	3

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**MVS GOVERNMENT ARTS & SCIENCE COLLEGE (A),
MAHABUBNAGAR**

DEPARTMENT OF URDU

B.Sc., B.A., B.Com. URDU

URDU Curriculum Mapping

Program specific course	Course Name (URDU)	PLO#1 Develop LSRW skill	PLO#2 write formal and Informal letters, applications	PLO#3 Communication skills	PLO#4 Build vocabulary and knowledge of literature	PLO#5 Critical, theoretical and philosophical approaches
(B.Sc. B.A. B.Com)	Paper I	1	2	1	2	1
	Paper II	1	2	1	2	1
	Paper III	2	2	2	3	2
	Paper IV	2	2	3	3	3

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DEPARTMENT OF ZOOLOGY

B.Sc. Zoology

Zoology Curriculum Mapping

Program specific course	Course Name (Zoology)	PLO#1 Communicate scientific information	PLO#2 Scientific Knowledge	PLO#3 Develop competence in basic sciences	PLO#4 Compare and contrast the characteristics of animals	PLO#5 Modern tool usage	PLO#6 concepts and principles of zoology	PLO#7 Understand the structure and functions of cell types	PLO#8 management and self-management skills.	PLO#9 Knowledge	PLO#10 Application & Understanding	PLO#11 Life-long learning
Life science (B.Sc. B.Z.C.)	Animal diversity - Invertebrates	3	3	2	3	2	3			3	3	3
	Animal diversity - Vertebrates	3	3	2	3	2	3			3	3	3
SEC 1	Apiculture	3	3	2	2	1	2		3	3	3	3
SEC 2	Vector Biology	2	3	2	2	1	2		3	2	3	3
	Animal Physiology & Animal behavior	3	3	3	3	3	3			3	3	3
SEC 3	Vermiculture	2	2	1	2	1	2		3	3	3	3
SEC 4	Sericulture	3	3	1	2	1	2		3	3	3	3
	Cell Biology Genetics & Developmental Biology	3	3	2	2	2	3	3		3	3	3
GE 1	Integrated Pest Management	2	2	1	2	2	2		3	2	3	3
	Immunology & Animal Biotechnology	3	3	2		1	2	2		3	3	3
	Ecology, Zoo Geography & Evolution	3	3	2	3	2	2			3	3	3
	Project	1	1	1		1	1			1	3	3

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