MGM University, Chhatrapati Sambhajinagar

Name of Faculty: Faculty of Basic and Applied Sciences
Name of the College/Institute/Department/School: University Department of Basic and Applied Science
Name of the Programme: 3/4 Years UG Programme B.Sc./B.Sc. (Hons.)Statistics /B.Sc. (Hons) with Research inStatistics
Programme Type (UG/PG): UG   **Duration: 3/4 Years (6/8 Semesters)**

Course Category	Course Code	Course Title	Nature of Course	No. of Credits	Teaching (Contact hrs/ week)		Evaluation Scheme (Marks)			Minimum Passing (Marks)		
					L	P	Internal	External	Total	Internal	External	Total
MM	BSS43MML101	Descriptive Statistics	L	2	2	-	30	20	50	-	08	20
MM	BSS43MML102	Probability Theory	L	2	2	-	30	20	50	-	08	20
MM	BSS43MMP101	Lab Course –I(Practical based on Descriptive Statistics and ProbabilityTheory)	P	2	-	4	30	20	50	-	08	20
OE	MGMXXOEXXXX	*Open Elective - I	L	2	2	-	30	20	50	-	08	20
OE	MGMXXOEXXXX	*Open Elective - II	L	2	2	-	30	20	50	-	08	20
VSC	BSS43VSP101	Data analysis using R	P	2	-	4	30	20	50	-	08	20
SEC	BSS43SEP101	Introduction to Excel	P	2	-	4	30	20	50	-	08	20
AEC	MGM54AEL10X	Ability Enhancement Course I	L	2	2	-	30	20	50	-	08	20
VEC	MGMXXVELXXX	*Value Education course I	L	2	2	-	30	20	50	-	08	20
IKS	BSS43IKL101	Development of Sciences in India: "Ancient to Modern"	L	2	2	-	30	20	50	-	08	20
CC	MGMXXCCPXXX	*Co – curricular course I	P	2	-	4	30	20	50	-	08	20
Total=30				**22**	**14**	**16**			**550**			

Note: *To be chosen from MGM University basket
Nature of Course: L- Lecture, P-Practical, S-Seminar, J-Project, I-Internship, D-Dissertation,
Course Category: MM-Major Mandatory, ME-Major Elective, MI-Minor, OE-Generic / Open electives, VSC-Vocational skill course, SEC-Skill Enhancement course, AEC-Ability Enhancement course, IKS-Indian Knowledge system, VEC-Value Education course, OJT-On Job Training / Internship / Apprenticeship, FP-Field project, CEP-Community engagement and service, CC-Co – curricular course, RM-Research methodology, RP-Research project

MGM University, Chhatrapati Sambhajinagar

First Year - Semester II								

Course Category	Course Code	Course Title	Nature of Course	No. of Credits	Teaching (Contact hrs/ week)		Evaluation Scheme (Marks)			Minimum Passing (Marks)		
					L	P	Internal	External	Total	Internal	External	Total
MM	BSS43MML103	Theory of variables and Attributes	L	2	2	-	30	20	50	-	08	20
MM	BSS43MML104	Distribution Theory - I	L	2	2	-	30	20	50	-	08	20
MM	BSS43MMP102	Lab Course –II (Practical based on Theory of variables and Attributes and Distribution Theory - I)	P	2	-	4	30	20	50	-	08	20
MIN		*Minor I	L	2	2	-	30	20	50	-	08	20
OE	MGMXXOEXXXX	*Open Elective - III	L	2	2	-	30	20	50	-	08	20
OE	MGMXXOEXXXX	*Open Elective - IV	L	2	2	-	30	20	50	-	08	20
VSC	BSS43VSP102	Introduction to SCILAB	P	2	-	4	30	20	50	-	08	20
SEC	BSS43SEP102	Advance Excel	P	2	-	4	30	20	50	-	08	20
AEC	MGM54AEL10X	*Ability Enhancement course II	L	2	2	-	30	20	50	-	08	20
VEC	MGMXXVELXXX	*Value Education course II	L	2	2	-	30	20	50	-	08	20
CC	MGMXXCCPXXX	*Co – curricular course II	P	2	-	4	30	20	50	-	08	20
Total=30				22	14	16			550			

Note: *To be chosen from MGM University basket
Nature of Course: L- Lecture, P-Practical, S-Seminar, J-Project, I-Internship, D-Dissertation,
Course Category: MM-Major Mandatory, ME-Major Elective, MI-Minor, OE-Generic / Open electives, VSC-Vocational skill course, SEC-Skill Enhancement course, AEC-Ability Enhancement course, IKS-Indian Knowledge system, VEC-Value Education course, OJT-On Job Training / Internship / Apprenticeship, FP-Field project, CEP-Community engagement and service, CC-Co – curricular course, RM-Research methodology, RP-Research project

Level 4.5 Award of UG certificate with 44 credits and an additional 4-credits core NSQF course / internship OR continue with major and minor.

MGM University, Chhatrapati Sambhajinagar

(Annexture I)

List of Options to select from Bucket of Courses provided in various categories:

Major
Statistics

Minor options Within Faculty of Basic Sciences	Web Technology	Animation
	Forensic Science	Mathematics
	Food Nutrition and Dietetics	Bioinformatics
	Chemistry	Material Science
	Geo-Informatics	

	Faculty of Engineering and Technology	Faculty of Social Sciences and Humanities	Faculty of Design	Faculty of Management and Commerce	Interdisciplinary Faculty	Performing Arts
Minor options from Other Faculty	Geo-Informatics and Applications	Filmmaking	Product Design	Financial Management	Cosmetic Technology	Theatre Arts
	Data Science	Photography	Visual Communication	E-Commerce	Education	Dance
	IoT	Psychology	Contemporary Arts	International Business Management	Yoga Sciences	Music
	Energy management	Economics	Interior Design	Hospitality Mgmt	Physical Education	Folk Art
	EV Technology	English	Fashion Technology	Travel and Tourism	Home Science	
	Drone Technology					
	Robotics Technology					

MGM University, Chhatrapati Sambhajinagar

						Second Year - Semester III						

Course Category	Course Code	Course Title	Nature of Course	No. of Credits	Teaching (Contact hrs/ week)		Evaluation Scheme (Marks)			Minimum Passing (Marks)		
					L	P	Internal	External	Total	Internal	External	Total
MM	BSS43MML201	Statistical Inference – I	L	3	3	-	60	40	100	-	16	40
MM	BSS43MML202	Distribution Theory – II	L	3	3	-	60	40	100	-	16	40
MM	BSS43MMP201	Lab Course –III(Practical based on Statistical Inference – I and Distribution Theory – II)	P	2	-	4	30	20	50	-	08	20
MIN		*Minor – II	L	4	4	-	60	40	100	-	16	40
OE	MGMXXOEXXXX	*Open Elective - V	L	2	2	-	30	20	50	-	08	20
VSC	BSS43VSP201	Introduction to Python	P	2	-	4	30	20	50	-	08	20
AEC	MGM54AEL20X	*Ability Enhancement course III	L	2	2	-	30	20	50	-	08	20
FP	BSS43FPJ201	Field project I	J	2	-	4	30	20	50	-	08	20
CC	MGMXXCCPXXX	*Co – curricular course III	P	2	-	4	30	20	50	-	08	20
Total=30				**22**	**14**	**16**			**600**			

Note: *To be chosen from MGM University basket
Nature of Course: L- Lecture, P-Practical, S-Seminar, J-Project, I-Internship, D-Dissertation,
Course Category: MM-Major Mandatory, ME-Major Elective, MI-Minor, OE-Generic / Open electives, VSC-Vocational skill course, SEC-Skill Enhancement course, AEC-Ability Enhancement course, IKS-Indian Knowledge system, VEC-Value Education course, OJT-On Job Training / Internship / Apprenticeship, FP-Field project, CEP-Community engagement and service, CC-Co – curricular course, RM-Research methodology, RP-Research project

Course Category	Course Code	Course Title	Nature of Course	No. of Credits	Teaching (Contact hrs/ week)		Evaluation Scheme (Marks)			Minimum Passing (Marks)		
					L	P	Internal	External	Total	Internal	External	Total
MM	BSS43MML203	Statistical Inference -II	L	3	3	-	60	40	100	-	16	40
MM	BSS43MML204	Sampling Distributions	L	3	3	-	60	40	100	-	16	40
MM	BSS43MMP202	Lab Course –IV(Practical based on Statistical Inference -II and Sampling Distributions)	P	2	-	4	30	20	50	-	08	20
MIN		*Minor – III	L	4	4	-	60	40	100	-	16	40
OE	MGMXXOEXXXX	*Open Elective - V	L	2	2	-	30	20	50	-	08	20
SEC	BSS43SEP201	Introduction R Shiny	P	2	-	4	30	20	50	-	08	20
AEC	MGM54AEL20X	*Ability Enhancement course IV	L	2	2	-	30	20	50	-	08	20
CEP	BSS43CEJ202	@Community Engagement Program	J	2	-	4	30	20	50	-	08	20
CC	MGMXXCCPXXX	*Co – curricular course IV	P	2	-	4	30	20	50	-	08	20
Total = 30				22	14	16			600			

Second Year - Semester IV

Note: *To be chosen from MGM University basket

@Community Engagement Program will consist of program for Secondary students about Importance of Statistics.

Nature of Course: L- Lecture, P-Practical, S-Seminar, J-Project, I-Internship, D-Dissertation,

Course Category: MM-Major Mandatory, ME-Major Elective, MI-Minor, OE-Generic / Open electives, VSC-Vocational skill course, SEC-Skill Enhancement course, AEC-Ability Enhancement course, IKS-Indian Knowledge system, VEC-Value Education course, OJT-On Job Training / Internship / Apprenticeship, FP-Field project, CEP-Community engagement and service, CC-Co – curricular course, RM-Research methodology, RP-Research project

Level 5.0 Award of UG Diploma in major and minor with (44+44) =88 credits and an additional 4-credits core NSQF course / internship OR continue with major and minor

							Third Year - Semester V							
Course Category	**Course Code**	**Course Title**	**Nature of Course**	**No. of Credits**	**Teaching (Contact hrs/ week)**		**Evaluation Scheme (Marks)**			**Minimum Passing (Marks)**		
					L	**P**	**Internal**	**External**	**Total**	**Internal**	**External**	**Total**
MM	BSS43MML301	Stochastic Processes	L	4	4	-	60	40	100	-	16	40
MM	BSS43MML302	Regression Analysis	L	4	4	-	60	40	100	-	16	40
MM	BSS43MMP301	Lab Course –V (Practical based on Stochastic Processesand Regression Analysis)	P	2	-	4	30	20	50	-	8	20
ME	BSS43MEL30X	$Major Elective I	L	4	4	-	60	40	100	-	16	40
MIN		* Minor – IV	L	4	4	-	60	40	100	-	16	40
VSC	BSS43VSP301	Advance Python	P	2	-	4	30	20	50	-	8	20
FP	BSS43FPJ301	Field project II	J	2	-	4	30	20	50	-	8	20
Total = 28				**22**	**16**	**12**			**550**			

$Major Elective I: To be chosen from ElementaryDemography /Statistical Quality Control.
Note: *To be chosen from MGM University basket
Nature of Course: L- Lecture, P-Practical, S-Seminar, J-Project, I-Internship, D-Dissertation,
Course Category: MM-Major Mandatory, ME-Major Elective, MI-Minor, OE-Generic / Open electives, VSC-Vocational skill course, SEC-Skill Enhancement course, AEC-Ability Enhancement course, IKS-Indian Knowledge system, VEC-Value Education course, OJT-On Job Training / Internship / Apprenticeship, FP-Field project, CEP-Community engagement and service, CC-Co – curricular course, RM-Research methodology, RP-Research project

Course Category	Course Code	Course Title	Nature of Course	No. of Credits	Teaching (Contact hrs/week)		Evaluation Scheme (Marks)			Minimum Passing (Marks)		
					L	P	Internal	External	Total	Internal	External	Total
MM	BSS43MML303	Design of Experiments	L	4	4	-	60	40	100	-	16	40
MM	BSS43MML304	Operational Research- I	L	4	4	-	60	40	100	-	16	40
MM	BSS43MMP302	Lab Course –VI (Practical based on Design of Experiments and Operational Research- I)	P	2	-	4	30	20	50	-	8	20
ME	BSS43MEL30X	$Major Elective II	L	4	4	-	60	40	100	-	16	40
MIN		* Minor – V	L	4	4	-	60	40	100	-	16	40
OJT	BSS43JTI301	On Job Training	I	4	-	8	60	40	100	-	16	40
	Total = 28			22	16	12			550			

Third Year - Semester VI

$Major Elective II: To be chosen from Industrial Statistics / Actuarial Statistics.
Note: *To be chosen from MGM University basket
Nature of Course: L- Lecture, P-Practical, S-Seminar, J-Project, I-Internship, D-Dissertation,
Course Category: MM-Major Mandatory, ME-Major Elective, MI-Minor, OE-Generic / Open electives, VSC-Vocational skill course, SEC-Skill Enhancement course, AEC-Ability Enhancement course, IKS-Indian Knowledge system, VEC-Value Education course, OJT-On Job Training / Internship / Apprenticeship, FP-Field project, CEP-Community engagement and service, CC-Co – curricular course, RM-Research methodology, RP-Research project

Level 5.5 Award of UG degree in major and minor (88+44) =132 credits OR continue with major and minor

MGM University, Chhatrapati Sambhajinagar

Fourth Year - Semester VII												
Course Category	Course Code	Course Title	Nature of Course	No. of Credits	Teaching (Contact hrs/ week)		Evaluation Scheme (Marks)			Minimum Passing (Marks)		
					L	P	Internal	External	Total	Internal	External	Total
MM	BSS43MML401	Multivariate Analysis	L	4	4	-	60	40	100	-	16	40
MM	BSS43MML402	Operational Research- II	L	4	4	-	60	40	100	-	16	40
MM	BSS43MML403	Time Series	L	4	4	-	60	40	100	-	16	40
MM	BSS43MMP401	Data analysis using SPSS	P	2	-	4	30	20	50	-	08	20
ME	BSS43MEL40X	$Major Elective III	L	4	4	-	60	40	100	-	16	40
RM	BSS43RML401	Research methodology	L	4	4		60	40	100	-	16	40
Total = 24				22	20	04			550			

Note: $Major Elective III: To be chosen from Econometrics/ Biostatistics

Nature of Course: L- Lecture, P-Practical, S-Seminar, J-Project, I-Internship, D-Dissertation,
Course Category: MM-Major Mandatory, ME-Major Elective, MI-Minor, OE-Generic / Open electives, VSC-Vocational skill course, SEC-Skill Enhancement course, AEC-Ability Enhancement course, IKS-Indian Knowledge system, VEC-Value Education course, OJT-On Job Training / Internship / Apprenticeship, FP-Field project, CEP-Community engagement and service, CC-Co – curricular course, RM-Research methodology, RP-Research project

MGM University, Chhatrapati Sambhajinagar

Course Category	Course Code	Course Title	Nature of Course	No. of Credits	Teaching (Contact hrs/ week)		Evaluation Scheme (Marks)			Minimum Passing (Marks)		
					L	P	Internal	External	Total	Internal	External	Total
MM	BSS43MML404	Linear programming	L	4	4	-	60	40	100	-	16	40
MM	BSS43MML405	Data Mining (text mining)	L	4	4	-	60	40	100	-	16	40
MM	BSS43MML406	Reliability Theory	L	4	4	-	60	40	100	-	16	40
MM	BSS43MMP402	Data Base Management Systems	P	2	-	4	30	20	50	-	08	20
ME	BSS43MEL40X	$Major Elective IV	L	4	4	-	60	40	100	-	16	40
OJT	BSS43JTI402	On Job Training	L	4	-	8	60	40	100	-	16	40
Total =28				22	16	12			550			

Note: $Major Elective IV To be chosen from Statistical Simulation / Index number

Nature of Course: L- Lecture, P-Practical, S-Seminar, J-Project, I-Internship, D-Dissertation,

Course Category: MM-Major Mandatory, ME-Major Elective, MI-Minor, OE-Generic / Open electives, VSC-Vocational skill course, SEC-Skill Enhancement course, AEC-Ability Enhancement course, IKS-Indian Knowledge system, VEC-Value Education course, OJT-On Job Training / Internship / Apprenticeship, FP-Field project, CEP-Community engagement and service, CC-Co – curricular course, RM-Research methodology, RP-Research project

Level 6.0 Four-year UG Honors Degree in major and minor (132 +44) = 176 credits

MGM University, Chhatrapati Sambhajinagar

Fourth Year - Semester VII												
Course Category	Course Code	Course Title	Nature of Course	No. of Credits	Teaching (Contact hrs/ week)		Evaluation Scheme (Marks)			Minimum Passing (Marks)		
					L	P	Internal	External	Total	Internal	External	Total
MM	BSS43MML401	Multivariate Analysis	L	4	4	-	60	40	100	-	16	40
MM	BSS43MML402	Operational Research- II	L	4	4	-	60	40	100	-	16	40
ME	BSS43MEL40X	$Major Elective III	L	4	4	-	60	40	100	-	16	40
MM	BSS43MMP401	Data analysis using SPSS	P	2	-	4	30	20	50	-	08	20
RM	BSS43RML401	Research methodology	L	4	4	-	60	40	100	-	16	40
RP	BSS43RPJ401	Research Project I	J	4	-	8	60	40	100	-	16	40
Total = 28				22	16	12			550			

Note: $Major Elective III**:** To be chosen from Econometrics/ Biostatistics

Nature of Course: L- Lecture, P-Practical, S-Seminar, J-Project, I-Internship, D-Dissertation,
Course Category: MM-Major Mandatory, ME-Major Elective, MI-Minor, OE-Generic / Open electives, VSC-Vocational skill course, SEC-Skill Enhancement course, AEC-Ability Enhancement course, IKS-Indian Knowledge system, VEC-Value Education course, OJT-On Job Training / Internship / Apprenticeship, FP-Field project, CEP-Community engagement and service, CC-Co – curricular course, RM-Research methodology, RP-Research project

MGM University, Chhatrapati Sambhajinagar

Fourth Year - Semester VIII												
Course Category	**Course Code**	**Course Title**	**Nature of Course**	**No. of Credits**	**Teaching (Contact hrs/ week)**		**Evaluation Scheme (Marks)**			**Minimum Passing (Marks)**		
					L	**P**	**Internal**	**External**	**Total**	**Internal**	**External**	**Total**
MM	BSS43MML404	Linear programming	L	4	4	-	60	40	100	-	16	40
MM	BSS43MML405	Data Mining (text mining)	L	4	4	-	60	40	100	-	16	40
MM	BSS43MMP402	Data Base Management Systems	P	2	-	4	30	20	50	-	08	20
ME	BSS43MEL40X	$Major Elective IV	L	4	4	-	60	40	100	-	16	40
RP	BSS43RPJ402	Research Project II	J	8	-	16	60	40	100	-	16	40
Total				**22**	**12**	**20**			**450**			

Note$Major Elective IV To be chosen from Statistical Simulation / Index number.

Nature of Course: L- Lecture, P-Practical, S-Seminar, J-Project, I-Internship, D-Dissertation,

Course Category: MM-Major Mandatory, ME-Major Elective, MI-Minor, OE-Generic / Open electives, VSC-Vocational skill course, SEC-Skill Enhancement course, AEC-Ability Enhancement course, IKS-Indian Knowledge system, VEC-Value Education course, OJT-On Job Training / Internship / Apprenticeship, FP-Field project, CEP-Community engagement and service, CC-Co – curricular course, RM-Research methodology, RP-Research project

Level 6.0 Four-year UG Honors Degree in major and minor (132 +44) = 176 credits

MGM University, Chhatrapati Sambhajinagar

Annexture II
List of Major Electives

Sr.No	Semester	Course Code	Course Title	Nature of Course
1	V	BSS43MEL301	Demography	L
		BSS43MEL302	Statistical Quality Control	L
3	VI	BSS43MEL303	Industrial Statistics	L
		BSS43MEL304	Actuarial Statistics	L
5	VII	BSS43MEL401	Econometrics	L
		BSS43MEL402	Biostatistics	L
7	VIII	BSS43MEL403	Statistical Simulation	L
		BSS43MEL404	Index number	L