Table 1: Courses to be taken by 100 level students in the Department of Mathematics, Statistics and Computer Science

Course Code	Course Title	Course Status	L Units	T Units	P Units	Pre-requisite	Total Units
`	**First Semester**						
MAT 101	Elementary Mathematics 1	C	3	1	-		4
STA 101	Elementary Statistics 1	C	2				2
CSC 101	Introduction to Computer Science	C	2				2
PHY 101	General Physics 1	C	2	1			3
PHY 191	General Physics Laboratory 1	C			1		1
CHE 101	Physical Chemistry 1	R	2	1			3
CHE 191	Practical Chemistry	E			1		1
BIO 101	Organisms & Environment	R	2		1		3
BIO 191	Biology Practical	E			1		1
GNS 101	Use of English	C	2				2
GNS 103	People Culture and Social Issues	C	2				2
	Total Units						24
		Compulsory units = 16; required units = 6; elective units = 2					
		Second Semester					
MA T102	Elementary Mathematics II	C	3	1			4
MAT 104	Vectors	C	2				2
STA 102	Elementary Statistics II	C	2				2
PHY 102	General Physics II	C	2	1			3
PHY 192	General Physics Laboratory II	E			1		1
CHE 102	Inorganic Chemistry	E					3
CHE 192	Practical Chemistry II	E			1		1
BIO 102	Principles of Biology	E	2		1		3
BIO 192	Biology Practical	E			1		1
GNS 102	Use of English II	C	2				2
GNS 104	Basic Computer Applications	C	2				2
GNS 108	Philosophy And logic	C	2				2
	Students must register for the 17 Compulsory units and a maximum of 8 elective units						

A. Courses to be taken at 200 to 400 level by Computer Science Students

Table 13: Courses to be taken by 200 - 400 level students of Computer Science

Course Code	Course Title	Course Status	L Units	T Units	P Units	Pre-requisite	Total Units
	First Semester						
MAT 201	Mathematical Methods 1	C	2			MAT 101	2
MAT 203	Linear Algebra 1	C	2			MAT 101	2

MAT 205	Abstract Algebra	C	2				2
MAT 207	Real Analysis 1	C	2	1			3
STA 203	Statistical Computing 1	C			1		1
STA 205	Probability 1	C	2				2
PHY 201	Classical Physics 1	R	2	1			3
CSC 201	Computer Programming 1	C	2		1	CSC 101	3
CSC 203	Discrete Mathematics	R	2				2
GNS 201	History & Philosophy of Science	C	2				2
GNS 203	Introduction to French 1	R	2				2
	Total units						24
	Compulsory units = 19; required units = 5; elective units = 0						
	Second Semester						
MA T 202	Intro. To Ordinary Differential Equations	C	2			MAT 102, MAT 101	2
MAT 204	Numerical Analysis 1	C	2				2
MAT 208	Introduction to Operations Research	R	2			MAT 203	2
MAT 210	Real Analysis II	C	2			MAT 207	2
CSC 202	Computer Programming II	C	2		1	CSC 201	3
CSC 210	Computer Operating System 1	C	2		1		3
CSC 212	Computer Networks	R	2				2
STA 202	Statistical Inference 1	R	2				2
STA 204	Introduction to social and economic statistics	E	2				2
GNS 202	Political History & Government	C	2				2
PHY 214	Introduction to Electronics	E	2				2
PHY 204	Modern Physics	E	2				2
GNS 204	Introduction to French II	R	2				2
	Compulsory units = 14; required units = 10						

Course Code	Course Title	Course Status	L Units	T Units	P Units	Pre-requisite	Total Units
	First Semester 300 Level						
CSC 301	Assembly Language Programming	C	2				2
CSC 303	Data Structure and algorithms	C	2			CSC 203, CSC 201, CSC 202	2
CSC 307	Computer Operating System II	C	2		1	CSC 210, CSC 203	3
CSC 309	Formal Methods of Software Development	E	2			CSC 202	2
CSC 311	Systems Analysis and Design	C	2			CSC 203	2
CSC 313	Compiler Construction	C	2		1	CSC 203	3
CSC 315	Computer Applications	E	2				2

CSC 317	Computer Graphics	E	2	1			3
GNS 301	Entrepreneurial Skills 1	C	1	1			2
MAT 301	Ring Theory	R	2	1		MAT 205	3
MAT 313	Numerical Analysis II	R	2			MAT 204	2
	Total units						26
	Compulsory units = 14; required units = 5; elective units = 7						
	Second Semester 300 Lvel						
GNS 302	Entrepreneurial Skills II	C	1	1			2
CSC 392	Industrial Attachment (SIWES)	C					6
CSC 398	Seminar	C					2
	Total Units						10
	Compulsory units = 10; required units = 0; elective units = 0						
	First Semester 400 Level						
CSC 401	Java Programming	R	2		1		3
CSC 411	Organisation of Programming Languages	R	2	1			3
CSC 409	Digital Design & Computer Architecture	C	2		1		3
CSC 417	Information Theory & Data Communication Systems	R	2	1		CSC 212	3
	Elective (Any 3 units from the following courses)						
CSC 403	Modelling and Simulation	E					3
CSC 415	Artificial Intelligence	E	2	1			3
CSC 421	Software Engineering	E	2	1			3
CSC 433	Computer Centre Management	E	2	1			3
MAT 407	Optimisation Theory	E	2	1			3
	Compulsory units = 3; required units = 9 elective = 3 units						
	Second Semester 400 Level						
CSC 412	Database Systems Design & Management	R	2		1	CSC 210, CSC 307	3
CSC 414	Microprocessor Architecture	R	3				3
CSC 499	Project	C					6
	Elective (Any 3 units from the following)						
CSC 422	Computer Systems Performance Evaluation	E	2	1		CSC 303, CSC 203	3
CSC 428	Theory of Computing	E	2	1			3
CSC 430	Web design & Data Security	E	2		1	CSC 203, CSC 303	3
STA 414	Theory of Games	E	2	1			3
	Total Units						24
	Compulsory units = 6; required units = 6 elective units = 3						

*A minimum of 24 units must be passed at the 400 level

B. Courses to be taken at 200 to 400 level by mathematics students

Table 14: Courses to be taken by 200 - 400 level students of Mathematics

Course Code	Course Title	Course Status	L Units	T Units	P Units	Pre-requisite	Total Units
`	**First Semester 200 Level**						
MAT 201	Mathematical Methods 1	C	2			MAT 101	2
MAT 203	Linear Algebra I	C	2			MAT 101	2
MAT 205	Abstract Algebra	C	2	1			3
MAT 207	Real Analysis 1	C	2				2
STA 201	Statistics for Non-Majors		2	1			3
STA 203	Statistical Computing 1	C			1		1
STA 205	Probability 1	C	2				2
PHY 201	Classical Physics 1	R	2	1			3
CSC 201	Computer Programming 1	C	2		1		3
GNS 201	History and Philosophy of Science	C	2				2
GNS 203	Introduction to French 1	R	2				2
	Total units						27
	Compulsory units = 17; required units = 5; elective units = 0						
	Second Semester 200 Level						
MAT 202	Intro. To Ordinary Differential Equations	C	2			MAT 102	2
MAT 204	Numerical Analysis 1	C	2				2
MAT 206	Mechanics	C	2	1			3
MAT 208	Introduction to Operations Research	E	2			MAT 203	2
MAT 210	Real Analysis II	C				MAT 207	2
CSC 202	Computer Programming II	R	2		1	CSC 201	3
STA 202	Statistical Inference 1	R	2				2
STA 204	Intro. To Social & Economic Statistics	E	2				2
STA 208	Probability II	C	2	1			3
PHY 204	Modern Physics	E	2				2
GNS 202	Political History & Government	C	2				2
GNS 204	Introduction to French II	R	2				2
	Total Units						27
	Compulsory units = 14; required units = 7; elective units = 6						
`	**First Semester 300 level**						
MAT 301	Ring Theory	C	2	1		MAT 205	3
MAT 323	Real Analysis III	R	2			MAT 207, MAT 210	2

MAT 305	Complex Analysis 1	C	2	1			3
MAT 309	Mathematical Methods II	C	2	1		MAT 201	3
MAT 311	Theory of Modules	R	2				2
MAT 313	Numerical Analysis II	C	2	1		MAT 204	3
MAT 315	Vectors & Tensor Analysis	E	2				2
MAT 317	Metric Space Topology	R	2	1		MAT 210	3
MAT 321	Linear Algebra II	R	2			MAT 203	2
STA 311	Statistical Methods	E	2	1			3
GNS 301	Entrepreneurial Skill 1	C	1	1			2
	Total Units						28
	Compulsory units = 14; required units = 9; elective units = 5						
	Second Semester 300 Level						
GNS 302	Entrepreneurial Skills II	C	1		1		2
MAT 392	Industrial attachment (SIWES)	C			6		6
MAT 398	Seminar	C			2		2
	Total Units						10
	Compulsory units = 10; required units = 0; elective units = 0						
`	**First Semester 400 Level**						
MAT 403	Functional Analysis	C	2	1		MAT 323	3
MAT 411	General Topology	C	2	1			3
	Electives (Any 6 units from the followings)						
MAT 407	Optimization Theory	E	2	1		MAT 208	3
MAT 409	Mathematical Methods III	E	2	1		MAT 309	3
MAT 413	Ordinary Differential Equations	E	2	1		MAT 202	3
MAT 415	Advanced Algebra 1	E	2	1		MAT 311	3
MAT 417	Fluid Dynamics 1	E	2	1			3
MAT 421	Numerical Analysis III	E	2	1		MAT 313	3
MAT 419	Complex Analysis II	E	2	1		MAT 305	3
PHY 303	Electromagnetic Waves	E	2	1			3
	Total units						30
	Compulsory units =6 ; required units = 0; elective units =24						
	Second Semester 400 Level						
MAT 412	Lebesgue Measure & Integration on IR	C	2	1		MAT 317, MAT 323	3
MAT 499	Project	C			6		6
	Electives (Any 9 units from the following)						
MAT 414	Partial Differential Equations	E	2	1			3
MAT 416	Advanced Algebra II	E	2	1		MAT 415	3
MAT 418	Fluid Dynamics II	E	2	1		MAT 417	3
MAT 422	Calculus of Variation	E	2	1			3
MAT 426	Systems Theory	E	2	1			3
MAT 472	Graphs and Matroids	E	2	1			3
STA 414	Theory of Games	E	2	1			3
	Total Units						30

		Compulsory units = 9 ; required units = 0 ; elective units = 21

*A minimum of 24 units must be passed at the 400 level

D. Courses to be taken at 200 to 400 level by statistics students

Table 15: Courses to be taken by 200 - 400 level students of Statistics

Course Code	Course Title	Course Status	L Units	T Units	P Units	Pre-requisite	Total Units
`	**First Semester 200Level**						
MAT 201	Mathematical Methods I	C	2	1		MAT 101	3
MAT 203	Linear Algebra I	C	2	1		MAT 101	3
MAT 205	Abstract Algebra	C	2				2
MAT 207	Real Analysis I	C	2	1			3
STA 201	Statistics for Non-Majors		2	1			3
STA 203	Statistical Computing I	C			1		1
STA 205	Probability I	C	2				2
PHY 201	Classical Physics I	R	2	1			3
CSC 201	Computer Programming I	C	2		1		3
GNS 201	History and Philosophy of Science	C	2				2
GNS 203	Introduction to French I	R	2				2
	Total units						24
	Compulsory units = 19; required units = 5; elective units = 0						
	Second Semester 200 Level						
MAT 202	Intro. To Ordinary Differential Equations	C	2			MAT 102	2
MAT 204	Numerical Analysis I	C	2				2
MAT 206	Mechanics	E	2	1			3
MAT 208	Introduction to Operations Research	R	2				2
MAT 210	Real Analysis II	C	2				2
CSC 202	Computer Programming II	C	2		1	CSC 201	3
STA 202	Statistical Inference I	C	2				2
STA 204	Intro. To Social & Economic Statistics	C	2				2
STA 208	Probability II	C	2	1		STA 205	3
PHY 204	Modern Physics	E	2				2
GNS 202	Political History & Government	C	2				2
GNS 204	Introduction to French II	R	2				2
	Total Units						27
	Compulsory units = 18; required units = 4; elective units = 5						

***STA 201** not to be taken by Mathematics, Statistics and Computer Science Students

Course Code	Course Title	Course Status	L Units	T Units	P Units	Pre-requisite	Total Units
	First Semester 300 Level						
STA 303	Distribution Theory 1	C	2	1			3
STA 305	Sampling Techniques 1	C	2		1		3
STA 307	Regression & Analysis of Variance 1	C	2	1			3
STA 309	Statistical Inference I	C	2			STA 202	2
STA 311	Statistical Methods 1	C	2	1			3
STA 313	Statistical computing II	C	2			STA 203	2
STA 315	Statistical Quality Control	R	2				2
STA 317	Biometric Methods I	C	2	1			3
MAT 303	Real Analysis III	R	2	1		MAT 210	3
MAT 313	Numerical Analysis II	E	2	1		MAT 204	3
GNS 301	Entrepreneurial	C	1	1			2
	Total Units						29
		Compulsory units = 21; required units = 5; elective units = 3					
	Second Semester 300 level						
STA 392	Industrial Attachment (SIWES)	C	6				6
STA 398	Seminar	C					2
GNS 302	Entrepreneurial Skills II	C	1	1			2
	Total Units						10
		Compulsory units = 10; required units = 0; elective units = 0					
	First Semester 400 Level						
STA 401	Probability III	E	2	1		STA 208	3
STA 403	Distribution Theory II	E	2	1		STA 303	3
STA 405	Sampling Techniques II	E	2	1		STA 305	3
STA 406	Stochastic Processes	E	2	1			3
STA 407	Regression & Analysis of Variance II	C	2	1		STA 307	3
STA 409	Time Series Analysis	R	2	1			3
STA 411	Experimental Design 1	C	2	1			3
STA 413	Decision Theory	E	2	1			3
STA 415	Biometric Methods II	E	2	1		STA 317	3
STA 417	Demography	R	2	1			3
STA 421	Statistical Methods II	E	2	1		STA 311	3
	Total units						33
		Compulsory units = 6 ; required units = 6; elective units = 21					
	Second Semester 400 Level						
STA 402	Statistical Inference II	R	2	1		STA 309	3

Course Code	Course Title	Course Status	L Units	T Units	P Units	Pre-requisite	Total Units
STA 408	Multivariate Methods	E	2	1			3
STA 410	Operation Research	E	2	1			3
STA 412	Experimental Design II	E	2	1		STA 411	3
STA 414	Theory of Games	E	2	1			3
STA 416	Econometric Methods	E	2	1			3
STA 418	Environmetrics	E	2	1			3
STA 424	Non Parametric Methods	E	2	1			3
STA 499	Project	C					6
	Total Units						30
		Compulsory units = 6; required units = 3; elective units = 21					

*A minimum of 24 units must be passed at the 400 level