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VEER NARMAD SOUTH GUJARAT UNIVERSITY

University Campus, Udhna-Magdalla Road, SURAT - 395 007, Gujarat, India.

વીર નર્મદ દક્ષિણ ગુજરાત યુનિવર્સિટી

યુનિવર્સિટી કેમ્પસ, ઉદના-મગદલા રોડ, સુરત - ૩૯૫ ૦૦૭, ગુજરાત, ભારત.

Telegram : VNSGU, Telephone : +91 - 261 - 2227141 to 2227146, Fax : +91 - 261 - 2227312

E-mail : info@vnsgu.ac.in, Website : www.vnsgu.ac.in

-: પરિપત્ર :-

વિજ્ઞાન વિદ્યાશાખા હેઠળની સંલગ્ન કોલેજોના આચાર્યશ્રીઓને આ કાર્યાલયના તા.૧૮-૦૬-૧૧ ના પરિપત્રક્રમાંક : એકે./પરિપત્ર/૫૩૨૦/૧૧ થી મોકલેલ સાયન્સ ફેકલ્ટીના સ્ટ્રક્ચરના સંદર્ભમાં જણાવવાનું કે, વિજ્ઞાન વિદ્યાશાખાએ તેની તા.૦૨-૦૭-૧૧ ની સભાના ઠરાવ ક્રમાંક : ૨ અન્વયે વિજ્ઞાન વિદ્યાશાખાનું CBCS મુજબનું ૧૪૪ ક્રેડિટનું આ સાથે સામેલ નવું સ્ટ્રક્ચર સ્વીકારી ૧૮૦ ક્રેડિટનું જૂનું સ્ટ્રક્ચર રદ કરેલ છે. જે એકેડેમિક કાઉન્સિલવતી માનનીય કુલપતિશ્રીએ મંજૂર કરેલ હોય તેની જાણ સંબંધકર્તા શિક્ષકો અને વિદ્યાર્થીઓને કરવી, તદ્ઉપરાંત તેનો અમલ કરવા વિનંતી.

બિડાણ : ઉપર મુજબ

ક્રમાંક : એકે./પરિપત્ર/૭૪૫૪/૧૧
તા. ૧૪-૦૭-૧૧


કુલસચિવ વડી

પ્રતિ,

- ૧) વિજ્ઞાન વિદ્યાશાખા હેઠળની સંલગ્ન કોલેજોના આચાર્યશ્રીઓ
- ૨) અધ્યક્ષશ્રી, વિજ્ઞાન વિદ્યાશાખા
- ૩) પરીક્ષા નિયામકશ્રી, પરીક્ષા વિભાગ, વીર નર્મદ દ. ગુ. યુનિવર્સિટી, સુરત.
- ૪) લાયબ્રેરી વિભાગ, વીર નર્મદ દ.ગુ.યુનિ., સુરત

...તરફ જાણ તેમજ ઘટતી કાર્યવાહી સારૂ.

VEER NARMAD SOUTH GUJARAT UNIVERSITY
FACULTY OF SCIENCE

UG B. Sc. Programmes (Except Maths)

Structure for Semester I & II				Theory		Practical		
Sr	Head	Code	Course (Papers)	Credit	Hours	Credit	Hours	Total Credits
1	Core I (e.g. Chemistry)	CC	2	4	6	2	4	6
2	Core II (e.g. Physics)	CE	2	4	6	2	4	6
3	Core-III (e.g. Zoology/Computer Science)	ED/ EO	2	4	6	2	4	6
4	Generic Elective (Appendix 1) (e.g. Mathematical Basics & Quantitive Skills)	GE	1	2	3	0	0	2
5	Foundation - Compulsary (Appendix 2) (e.g. Communication Skills)	FC	1	2	3	0	0	2
6	Foundation - Elective (Appendix 3) (e.g. NCC)	FE	1	2	2	0	0	2
Total			9	18	26	6	12	24

Structure for Semester III & IV

Sr	Head	Code	Course (Papers)	Theory		Practical		Total
				Credits	Hours	Credits	Hours	Credits
1	Core I	CC	3	6	6	3	7.5	9
	(e.g. Chemistry)							
2	Core II	CE	3	6	6	3	7.5	9
	(e.g. Physics)							
3	Generic Elective (Appendix 1)	GE	1	2	3	0	0	2
	(e.g. Mathematical Basics & Quantitive Skills)							
4	Foundation - Compulsary (Appendix 2)	FC	1	2	3	0	0	2
	(e.g. Communication Skills)							
5	Foundation - Elective (Appendix 3)	FE	1	2	2	0	0	2
	(e.g. NCC)							
Total			9	18	20	6	15	24

Structure for Semester V & VI

Sr	Head	Code	Course (Papers)	Theory		Practicals		Total
				Credit	Hours	Credit	Hours	Credits
1	Core Compulsary (e.g. Chemistry)	CC	6	12	12	6	12	18
2	Generic Elective (Appendix 4) (e.g. Mathematical Basics & Quantitive Skills)	GE	1	2	3	0	0	2
3	Foundation - Compulsary (Appendix 2) (e.g. Communication Skills)	FC	1	2	3	0	0	2
4	Foundation - Elective (Appendix 3) (e.g. NCC)	FE	1	2	2	0	0	2
Total			9	18	20	6	12	24

	Sem. I	Sem.II	Sem.III	Sem.IV	Sem.V	Sem.VI	Total
Credits	24	24	24	24	24	24	144

B. Sc (Honors)

Options for Core I, Core II & Discipline Centric Elective/Open Elective Subjects in the Faculty of Science:

Sem I & II

- 1 Core I : Chemistry/Physics or Physics for electronics/Mathematics/Botany/Zoology/Computer Science/Statistics
Electronics or Electronics for Computer/Biotechnology/Medical Technology/Micro-Biology/Bio-Science
- 2 Core II: Chemistry/Physics or Physics for Electronics/Mathematics/Botany/Zoology/Computer Science/Statistics
Electronics or Electronics for Computer/Biotechnology/Medical Technology/Micro-Biology /Bio-Science
- 3 Core III : Chemistry/Physics or Physics for electronics/Mathematics/Botany/Zoology/Computer Science/Statistics
Electronics or Electronics for Computer/Biotechnology/Medical Technology/Microbiology/Bio-Science

Sem III & IV

- 4 Any two subjects from Core I, Core II and Core III can be selected as Core I and Core II in the third semester.

Note

- 1 A student will have to choose a Core Compulsory course, a Core Elective course different from the chosen core Compulsory Course, and a Discipline Centric/open Elective course different from the chosen core Compulsory and Core Elective courses from the lists given above.
- 2 All practical evaluation except in semester V & VI will be internal
- 3 Theory lectures of Mathematics per course shall have 3 instead of 2 credits in lieu of practical
- 4 30% evaluation shall be internal and 70% external in Theory components of the courses.
- 5 Students who have not passed 12th Standard Exams with Mathematics, and are desirous of opting Mathematics
Students who have not passed 12th standard exam with mathematics and wish to opt mathematics / physics as Core I, Core II or Core III course shall be required to opt for "Mathematical Basics & Quantitative skills" as Generic Elective Course.
- 6 Students who have not passed 12th Standard Exams with Biology, and are desirous of opting Micro-Biology/Zoology/Botany
Student who have not passed 12 standard exam with biology and opt to have Microbiology/Zoology/Botany/Biotechnology as Core I, Core II or Core III course shall be required to opt for "Bio-Diversity" as Generic Elective Course.
- 7 Students will have an option to choose any course as core compulsory course in the fifth semester from the Core
- 8 Compulsory Foundation Course to be opted for in each semester shall be different in each semester, and; and once
- 9 In the first and second semester, any faculty members of Biology can teach Microbiology, Botany, Zoology, Bio-Science etc.
- 10 Batch size for practicals in all subject is recommended to be 15 students per batch as per UGC rules and regulations.
- 11 All Institute Heads are requested to form a committee for admissions and students should be offered subject as

Appendix 1

Generic Elective courses (Code : GE)

Sr	Course Code	Course Nomenclature
1	GE01	Mathematical Basics & Quantative Skills
2	GE02	Bio-Diversity
3	GE03	Bio-Informatics
4	GE04	Bio-Physics
5	GE05	Bio-Chemistry
6	GE06	Food and Adultration
7	GE07	Public Health
8	GE08	Forensic Science
9	GE09	Clinical Research
10	GE10	Medical Laboratory Technology
11	GE11	Environment Studies
12	GE12	Green Chemistry
13	GE13	Nano-Technology
14	GE14	Climate-Change
15	GE15	Philosophy, Science & Religion
16	GE16	Philosophy of Science
17	GE17	Nutrition & Dietetics
18	GE18	Structure & Growth of Scientific Knowledge
19	GE19	Genetics
20	GE20	Inclusive Growth Technologies
21	GE21	History of Science
22	GE22	Carbon Credit
23	GE23	Science & Society
24	GE24	Computer Applications
25	GE25	Renewable Energy Sources
26	GE26	Statistics & Data Analysis
27	GE27	History of Inventions
28	GE28	Industrial Physics
29	GE29	Industrial Chemistry
30	GE30	Industrial Biology
31	GE31	Programing Methodology
32	GE32	Electromagnetics and Radiation
33	GE33	PCB design and Technology
34	GE34	Circuit Simulation
35	GE35	Engineering Physics

36	GE36	Non Renewable Energy
37	GE37	Environmental Physics
38	GE38	Atmospheric Physics
39	GE39	Physics of finance (Econo-Physics)
40	GE40	Plasma Physics
41	GE41	LASER Physics
42	GE42	Chemical Physics
43	GE43	Statistical Methods
44	GE44	Mathematical Methods
45	GE45	Elements of Business Mathematics
46	GE46	History of Mathematics
47	GE47	Group of Symmetries
48	GE48	Mathematical Modelling
49	GE49	Marine Science

Appendix 2

Foundation (Compulsary) courses (Code : FC)

Sr	Course Code	Course Nomenclature
1	FC1	General English
2	FC2	English & Communication skills
3	FC3	English & Correspondance skills
4	FC4	Scientific Writing
5	FC5	Value oriented Education
6	FC6	Skill oriented Education

Appendix 3

Foundation (Elective) courses (Code : FE)

Sr	Course Code	Course Nomenclature
1	FE1	NCC
2	FE2	NSS
3	FE3	Physical Training
4	FE4	Yoga
5	FE5	Saptadhara
6	FE6	Scope Course (Separate list attached)
7	FE7	GKS Course (Separate list attached)
8	FE8	Armed and Unarmed Combat & Basic Military Skills

Appendix 4

Generic Elective courses for Semesters V & VI (Code : GE)

Sr	Course Code	Course Nomenclature
1	GE45	PetroChemicals
2	GE46	Dyes
3	GE47	Drugs
4	GE48	Polymers
5	GE49	Agro-Chemistry
6	GE50	Advances in Green Chemistry
7	GE51	Materials Science
8	GE52	Electronics
9	GE53	Advances in Nanotechnology
10	GE54	Astro-Physics
11	GE55	Programming for Physicists and Mathematicians
12	GE56	Fisheries
13	GE57	Appalied Zoology
14	GE58	Advances in Genetics
15	GE59	Computer Applications for Statisticians
16	GE60	Mathematical Methods of Physics
17	GE61	Number Theory
18	GE62	Mechanics
19	GE63	Computer Oriented Numerical Analysis
20	GE64	Operational Research
21	GE65	Game Theory
22	GE66	Floriculture
23	GE67	Horticulture
24	GE68	Gardening
25	GE69	Plant Bio-Technology
26	GE70	Engineering Graphics
27	GE71	Computer Networking
28	GE72	Integrated Circuits Technology
29	GE73	Industrial Management
30	GE74	Python Programming
31	GE75	Engineering Physics
32	GE76	Bio-Physics
33	GE77	Environmental Physics
34	GE78	Atmospheric Physics
35	GE79	Physics of finance (Econo-Physics)

36	GE80	Plasma Physics
37	GE81	LASER Physics
38	GE82	Chemical Physics
39	GE83	Agriculture Biotechnology
40	GE84	Animal Biotechnology
41	GE85	Acquatic Biotechnolohy
42	GE86	Health Science
43	GE87	Introduction to Biostatistics
44	GE88	Advances in Biostatistics
45	GE89	Introduction to Nanobiotechnology
46	GE90	Nanobiotechnology & human health
47	GE91	Instrumentation and techniques
48	GE92	Quality management in laboratory

Note: Additional courses as and when proposed by BOS of Core Subjects shall be introduced.

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FACULTY OF SCIENCE

UG B.Sc. Programmes

Evaluation Structure under CBCS for the science subjects

Semester	Course	Paper No.	Hours/week	Credit	Exam Hours	Marks		Total
						Internal	External	
I	Core-I	1	3	2	2	20	50	70
		2	3	2	2	20	50	70
	Core-I (Pra)	1	2	1	2	10	20	30
		2	2	1	2	10	20	30
	Core-II	1	3	2	2	20	50	70
		2	3	2	2	20	50	70
	Core-II (Pra)	1	2	1	2	10	20	30
		2	2	1	2	10	20	30
	Core-III A (Maths)	1	3	3	3	30	70	100
		2	3	3	3	30	70	100
	Core-III B	1	3	2	2	20	50	70
		2	3	2	2	20	50	70
	Core-III B (Pra)	1	2	1	2	10	20	30
		2	2	1	2	10	20	30
F. C. (English)	-	3	2	3	30	70	100	
E.C.(Env.)	-	3	2	3	30	70	100	
II	Core-I	1	3	2	2	20	50	70
		2	3	2	2	20	50	70
	Core-I (Pra)	1	2	1	2	10	20	30
		2	2	1	2	10	20	30
	Core-II	1	3	2	2	20	50	70
		2	3	2	2	20	50	70
	Core-II (Pra)	1	2	1	2	10	20	30
		2	2	1	2	10	20	30
	Core-III A (Maths)	1	3	3	3	30	70	100
		2	3	3	3	30	70	100
	Core-III B	1	3	2	2	20	50	70
		2	3	2	2	20	50	70
	Core-III B (Pra)	1	2	1	2	10	20	30
		2	2	1	2	10	20	30
F. C. (English)	-	3	2	3	30	70	100	
E.C.(Env.)	-	3	2	3	30	70	100	

Semester	Course	Paper No.	Hours/week	Credit	Exam Hours	Marks		Total
						Internal	External	
III	Core-I	3	2	2	2	20	50	70
		4	2	2	2	20	50	70
		5	2	2	2	20	50	70
	Core-I (Pra)	3	2	1	2.5	10	20	30
		4	2	1	2.5	10	20	30
		5	2	1	2.5	10	20	30
	Core-II (Maths)	3	3	3	3	30	70	100
		4	3	3	3	30	70	100
		5	3	3	3	30	70	100
	Core-II B	3	2	2	2	20	50	70
		4	2	2	2	20	50	70
		5	2	2	2	20	50	70
	Core-II B (Pra)	3	2	1	2.5	10	20	30
		4	2	1	2.5	10	20	30
		5	2	1	2.5	10	20	30
F. C. (English)	-	3	2	3	30	70	100	
E.C.(ID)	-	3	2	3	30	70	100	
Semester	Course	Paper No.	Hours/week	Credit	Exam Hours	Marks		Total
IV	Core-I	3	2	2	2	20	50	70
		4	2	2	2	20	50	70
		5	2	2	2	20	50	70
	Core-I (Pra)	3	2	1	2.5	10	20	30
		4	2	1	2.5	10	20	30
		5	2	1	2.5	10	20	30
	Core-II A (Maths)	3	3	3	3	30	70	100
		4	3	3	3	30	70	100
		5	3	3	3	30	70	100
	Core-II B	3	2	2	2	20	50	70
		4	2	2	2	20	50	70
		5	2	2	2	20	50	70
	Core-II B (Pra)	3	2	1	2.5	10	20	30
		4	2	1	2.5	10	20	30
		5	2	1	2.5	10	20	30
F. C. (English)	-	3	2	3	30	70	100	
E.C.(ID)	-	3	2	3	30	70	100	

sem	Course	Paper No.	Hours/week	Credit	Exam Hours	Marks		Total
						Internal	External	
V	Core I	6	2	2	2	20	50	70
		7	2	2	2	20	50	70
		8	2	2	2	20	50	70
		9	2	2	2	20	50	70
		10	2	2	2	20	50	70
		11	2	2	2	20	50	70
	Core I (Pra)	6	2	1	2	10	20	30
		7	2	1	2	10	20	30
		8	2	1	2	10	20	30
		9	2	1	2	10	20	30
		10	2	1	2	10	20	30
		11	2	1	2	10	20	30
	Core -I (Maths)	6	3	3	3	30	70	100
		7	3	3	3	30	70	100
		8	3	3	3	30	70	100
		9	3	3	3	30	70	100
		10	3	3	3	30	70	100
		11	3	3	3	30	70	100
	F.C. (English)	v	3	2	3	30	70	100
	E.C. (ID)	v	3	2	3	30	70	100
	sem	Course	Paper No.	Hours/week	Credit	Exam Hours	Marks	
VI	Core I	6	2	2	2	20	50	70
		7	2	2	2	20	50	70
		8	2	2	2	20	50	70
		9	2	2	2	20	50	70
		10	2	2	2	20	50	70
		11	2	2	2	20	50	70
	Core I (Pra)	6	2	1	2	10	20	30
		7	2	1	2	10	20	30
		8	2	1	2	10	20	30
		9	2	1	2	10	20	30
		10	2	1	2	10	20	30
		11	2	1	2	10	20	30
	Core -I (Maths)	6	3	3	3	30	70	100
		7	3	3	3	30	70	100
		8	3	3	3	30	70	100
		9	3	3	3	30	70	100
		10	3	3	3	30	70	100
		11	3	3	3	30	70	100
	F.C. (English)	v	3	2	3	30	70	100
	E.C. (ID)	v	3	2	3	30	70	100

Note : Marking Scheme and exam hours for practicals of sem V-VI will be decided by the respective Board of studies according to their subjects,keeping the total marks(Internal and External) unchanged.