VIGNAN'S
Foundation for Science, Technology & Research
(Deemed to be University)
Estd. u/s 3 of UGC Act 1956

Department of Mathematics
School of Applied Sciences and Humanities

Circular

Date: July 01, 2022

This is to inform you that the meeting of Board of Studies for B.Sc. Programme will be held on July 06, 2022 (Wednesday) on the University campus. This meeting will be held in hybrid mode.

Agenda:

1. To discuss and finalize the detailed syllabus of Mathematics, Statistics and Computer Science courses to be offered for B. Sc. (Mathematics, Statistics, Computer Science) for the regulation 2022.
2. To discuss and finalize the detailed syllabus of electives in Mathematics, Statistics and Computer Science to be offered for B. Sc. (Mathematics, Statistics, Computer Science) for the regulation 2022.
3. To approve the R22 curriculum and syllabus of Mathematics, Statistics and Computer Science courses of B.Sc. and electives and recommend to the Academic counsel.
4. Any other point with the permission of Chairperson.

All the members of the Board of studies are requested to attend the meeting without fail.

Venue: Dean's chamber, 'A' block, III floor, VFSTR, Vadlamudi.
Date : July 06, 2022 (Wednesday)
Time : 10.00 AM

Dr. P. L. N. VARMA
Professor and Head,
Chairman, Board of Studies
Department of Mathematics
School of Applied Sciences and Humanities

Dr. P.L.N. Varma
Head Department of Mathematics
School of Applied Sciences & Humanities
VFSTR (Deemed to be Unitersity)
Guntur - 522 213

Copy to

All members of BoS
All faculty
Dean, School of Applied Sciences & Humanities

VIGNAN'S
Foundation for Science, Technology & Research
(Deemed to be University)
Estd. u/s 3 of UGC Act 1956

School of Applied Sciences and Humanities
Department of Mathematics

Minutes of Board of Studies Meeting for B. Sc.

Minutes of the meeting of the Board of Studies held at the chamber of Dean, School of ASH on 06/07/2022 at VFSTR in blended (online/offline) mode from 10.00 a.m. to 4 p.m.

The virtual meeting link is
https://us06web.zoom.us/j/82225641349?pwd=VnQrS3hsVDZhV3pDZHQwelMzNXM5dz09.

Agenda of the Meeting:

1. To Discuss and finalise the curriculum structure and detailed syllabus of B. Sc. degree programme for the regulation 2022.
2. To approve the R22 curriculum and syllabus of B. Sc. degree programme and recommended to the Academic Council.
3. Review of the courses related to B. Sc. and skill enhancement for employability being proposed as per R-22 Regulation.

Sl. No.	Semester	Course Title	Offered by
1.	I	Calculus	Mathematics
2.	I	Descriptive Statistics and Probability Distributions	Statistics
3.	I	Programming in C	Computer Science
4.	I	IT Workshop	Computer Science
5.	II	Algebra	Mathematics
6.	II	Mathematical Expectation and Probability Distributions	Statistics
7.	II	Data Structures	Computer Science
8.	III	Differential Equations	Mathematics
9.	III	Statistical Methods	Statistics
10.	III	Computer Organization & Architecture	Computer Science
11.	IV	Real Analysis	Mathematics
12.	IV	Statistical Inference	Statistics
13.	IV	Formal Languages and Automata Theory	Computer Science
14.	V	Linear Algebra	Mathematics
15.	V	Sampling Techniques	Statistics
16.	V	Database Management Systems	Computer Science

The following members present

1. Prof. P. L. N. VARMA, Head of the Dept, Chairperson
2. Dr. S. PARTHIBAN, Assoc.Professor, Secretary
3. Prof. V. R. K. MURTHY, Professor, Member
4. Dr. P. SUDAM SEKAR, Assoc.Professor, Member
5. Dr. M. V. SUBBA RAO, Assoc.Professor, Member
6. Dr. U. V. MANOJ KUMAR, Asst.Professor, Member
7. Dr. T. L. YOKESH, Asst.Professor, Member
8. Dr.P.SIVA PRASAD, Assoc.Professor, Member (Nominee of School Dean)
9. Prof. Y. N. REDDY, Professor of Mathematics, NIT, Warangal, External Expert
10. Dr. BOOBALAN, Data Scientist, Zak Apps software Pvt. Ltd, Chennai,, External Expert

The following points were discussed in the BOS meeting:

1. Regulation R22
2. Curriculum structure with credits, credits distribution
3. Two modules instead of five units
4. Assessment methods (Formative & Summative)
5. Grading Schemes
6. Elective streams/pools

The following resolutions made after the discussion:

1. BOS Members approved the revised regulations, curriculum structure, syllabus of B. Sc. degree programmes and it follows based on the NEP-2020.Curriculum structure is provided in Appendix-I
2. Major restructuring has taken place in the curriculum, which is oriented towards continuous learning and assessment based on Module structure.
3. The curriculum is encompassing the courses that enable employability or entrepreneurship or skill development, provided in Appendix- II.
4. The significant changes are made in the content of all courses and hence the courses are considered as new courses provided in Appendix- III.
5. Some of the suggested books are modified and restructured as per the suggestions made in the meeting
6. As per the changing circumstances it is suggested in the meeting to add or change some of the elective courses to meet the challenges at global level.
7. Comparison of course contents between R20 and R22 curriculums is provided in Appendix-IV

Based on the suggestions given by the members, the Chairperson of BoS told that, those fruitful suggestions would be incorporated appropriately in the curriculum and syllabi of the regulation R22 and this will be recommended to the Academic Council of VFSTR for the approval.

There being no further points for discussion, the Chairperson thanks all the external, internal, invited members and announced that the meeting was adjourned.

Member Secretary **Chairperson**

Prof. P.L.N.VARMA

Dr.S.PARTHIBAN

Prof.V.R.K.MURTHY

Dr.P.SUDAM SEKAR

Dr.M.V.SUBBARAO

Dr.U.VMANOJ KUMAR

DR.T.L.YOKESH

Dr.P.SIVA PRASAD

Prof.Y.N.REDDY

(Virtually Attended)

Dr.BOOBALAN

(Virtually Attended)

APPENDIX I
B. Sc. Programme: Curriculum Structure

I year I Semester (Semester 1)

Sl. No.	Course Title	L	T	P	C	Course Category	Offered by
1.	Technical English Communication	2	2	2	4	Humanities	English
2.	Calculus	3	2	0	4	Core	Mathematics
3.	Descriptive Statistics and Probability Distributions	3	0	2	4	Core	Statistics
4.	Programming in C	2	0	4	4	Core	Computer Science
5.	IT Workshop	0	2	4	3	Employability skill	Computer Science
6.	Sports / Physical fitness / Games			3	1	Binary Grade	
	Total	**10**	**6**	**15**	**20**		
		31 hr					

L=Lecture; T= Tutorial; P= Practical; C=Credits

I year I / II Semester (Semester 1 / 2)

Sl. No.	Course Title	L	T	P	C	Course Category	Offered by
1.	Oriental Session	1	4		3	Binary Grade	SA

L=Lecture; T= Tutorial; P= Practical; C=Credits

I year II Semester (Semester 2)

Sl. No.	Course Title	L	T	P	C	Course Category	Offered by
1.	English Proficiency and Communication skills	2	2	2	4	Humanities	English
2.	Algebra	3	2	0	4	Core	Mathematics
3.	Mathematical Expectation and Probability Distributions	3	0	2	4	Core	Statistics
4.	Data Structures	2	2	2	4	Core	Computer Science
5.	Sports / Physical fitness / Games			3	1	Binary Grade	
	Total	**10**	**6**	**9**	**17**		
		25 hr					

L=Lecture; T= Tutorial; P= Practical; C=Credits

II year I Semester (Semester 3)

Sl. No.	Course Title	L	T	P	C	Course Category	Offered by
1.	Business English Communication – I	2	0	2	3	Humanities	English
2.	Differential Equations	3	2	0	4	Core	Mathematics
3.	Statistical Methods	3	2	0	4	Core	Statistics
4.	Computer Organization & Architecture	3	0	2	4	Core	Computer Science
5.	Analytical Skills	1	2	0	2	Humanities	T & P Cell
6.	General Studies I	1	2	0	2	Humanities	T & P Cell
7.	NCC / NSS / SAC / Paper presentation / Social Activities	0	0	2	0	Binary Grade	
	Total	**13**	**8**	**6**	**19**		
		27 hr					

L=Lecture; T= Tutorial; P= Practical; C=Credits

II year II Semester (Semester 4)

Sl. No.	Course Title	L	T	P	C	Course Category	Offered by
1.	Business English Communication II	2	0	2	3	Humanities	English
2.	Real Analysis	3	2	0	4	Core	Mathematics
3.	Statistical Inference	3	2	0	4	Core	Statistics
4.	Formal Languages and Automata Theory	3	0	2	4	Core	Computer Science
5.	Environmental Science	1	0	0	1	Applied Science	Chemistry
6.	General Studies II	1	2	0	2	Humanities	T & P Cell
7.	Employability Skills	1	2	0	2	Humanities	T & P Cell
8.	NCC / NSS / SAC / Paper presentation / Social Activities	0	0	2	1	Binary Grade	
	Total	**14**	**8**	**6**	**21**		
		28 hr					

L=Lecture; T= Tutorial; P= Practical; C=Credits

III year I Semester (Semester 5)

Sl. No.	Course Title	L	T	P	C	Course Category	Offered by
1.	Linear Algebra	3	0	2	4	Core	Mathematics
2.	Sampling Techniques	3	2	0	4	Core	Statistics
3.	Database Management Systems	3	2	0	4	Core	Computer Science
4.	*Mathematics Elective I	3	0	2	4	Elective	Mathematics
5.	Statistics Elective II	3	2	0	4	Elective	Statistics
6.	Computer Science Elective III	3	0	2	4	Elective	Computer Science
	Total	**18**	**6**	**6**	**24**		
		30 hr					

L=Lecture; T= Tutorial; P= Practical; C=Credits

**** Candidate can also acquire a maximum of 4 credits through MOOCS (Swayam Based NPTEL) which can be considered equivalent to one of the electives.***

III year II Semester (Semester 6)

Sl. No.	Course Title	L	T	P	C	Course Category	Offered by
1.	Mathematics Elective IV	3	0	2	4	Elective	Mathematics
2.	Statistics Elective V	3	2	0	4	Elective	Statistics
3.	Computer Elective VI	3	2	0	4	Elective	Computer Science
4.	Project		2	6	4	Project	Mathematics / Statistics / Computer Science
	Total	**9**	**6**	**8**	**16**		
		23 hr					

L=Lecture; T= Tutorial; P= Practical; C=Credits

List of Elective Courses

Basket Name	Odd Semester Pool
Mathematics	1. Analytical Geometry
Mathematics	2. Graph Theory
Mathematics	3. Numerical Analysis
Statistics	4. Design of Experiments
Statistics	5. Econometrics
Statistics	6. Statistical analysis through SPSS/R
Computer Science	7. Software Engineering
Computer Science	8. Object Oriented Programming
Computer Science	9. Computer Networks
Computer Science	10. Machine Learning

Basket Name	Even Semester Pool
Mathematics	1. Complex Analysis
Mathematics	2. Number Theory
Mathematics	3. Integral Transforms
Statistics	4. Advanced Probability
Statistics	5. Operations Research
Statistics	6. Applied Statistics
Computer Science	7. Web Technologies
Computer Science	8. Python Programming
Computer Science	9. Operating Systems

Chairperson

APPENDIX II

List of Courses that Enables Employability or Entrepreneurship or Skill Development

S. No.	Year and Semester	Course Title	Employability / Entrepreneurship / Skill development
1.	I Year I Semester	Technical English Communication	Skill development
2.	I Year I Semester	Calculus	Skill development
3.	I Year I Semester	Descriptive Statistics and Probability Distributions	Skill development
4.	I Year I Semester	Programming in C	Skill development
5.	I Year I Semester	IT Workshop	Skill development
6.	I Year II Semester	English Proficiency and Communication skills	Skill development
7.	I Year II Semester	Algebra	Skill development
8.	I Year II Semester	Mathematical Expectation and Probability Distributions	Skill development
9.	I Year II Semester	Data Structures	Skill development
10.	II Year I Semester	Business English Communication – I	Skill development
11.	II Year I Semester	Differential Equations	Skill development
12.	II Year I Semester	Statistical Methods	Skill development
13.	II Year I Semester	Computer Organization & Architecture	Skill development
14.	II Year II Semester	Business English Communication II	Skill development
15.	II Year II Semester	Real Analysis	Skill development
16.	II Year II Semester	Statistical Inference	Skill development
17.	II Year II Semester	Formal Languages and Automata Theory	Skill development
18.	III Year I Semester	Linear Algebra	Skill development
19.	III Year I Semester	Sampling Techniques	Skill development
20.	III Year I Semester	Database Management Systems	Skill development
21.	II Year I Semester	Analytical Skills	Employability
22.	II Year I Semester	General Studies I	Employability
23.	II Year II Semester	General Studies II	Employability
24.	II Year II Semester	Employability Skills	Employability

Chairperson

APPENDIX- III

List of New Courses in the R22 Curriculum

S. No.	Year and Semester	Course Title	Employability / Entrepreneurship / Skill development
1.	I Year I Semester	IT Workshop	Skill development
2.	II Year I Semester	Computer Organization & Architecture	Skill development
3.	II Year II Semester	Formal Languages and Automata Theory	Skill development

Chairperson

APPENDIX IV

Comparison of Course Contents between R20 and R22 Curriculums

(Should be maintained by BoS member for future reference)

S. No.	Year and Semester	Course Title	% of Changes
1.	I Year I Semester	Descriptive Statistics and Probability Distributions	20%
2.	III Year I Semester	Sampling Techniques	22%
3.	III Year I Semester	Linear Algebra	18%
		Average % of Changes	**20.00%**

Chairperson