REVA UNIVERSITY
Bengaluru, India

PROCEEDINGS
of the
ACADEMIC COUNCIL MEETING

2021-22

REVA UNIVERSITY
Bengaluru, India

PROCEEDINGS

of the

25th ACADEMIC COUNCIL MEETING

11th June 2021 – 10.a.m.

Rukmini Educational
Charitable Trust

www.reva.edu.in

Rukmini Knowledge Park,
Kattigenahalli, Yelahanka, Bengaluru - 560 064
Phone No: +91-080-46966966, Fax: 080-28478539

25th Meeting of the Academic Council

Date: 11th June, 2021
Time: 10.00 am

Sl. No	Name	Designation	Signature
1	Dr. M Dhanamjaya Vice Chancellor	Chairperson	
2	Dr. N. Ramesh The Registrar	Member Secretary	
3	Dr. Beena G Controller of Examinations	Member	
4	Dr. DVS Bhagavanulu Dean, Planning and Development	Member	
5	Dr. B P Divakar Dean, Research and Innovation council	Member	
	Directors of Schools		
6	Dr. Sunil Kumar Manvi Schools of CIT and CSE	Member	absent
7	Dr. R C. Biradar School of Electronics and Communication Engineering	Member	
8	Dr. Ramalinga Reddy School of Civil Engineering	Member	
9	Dr. Shubha A School of Commerce and Management Studies	Member	11/6/2021
10	Dr. Narayanaswamy K S School of Mechanical Engineering	Member	11/06/21
11	Dr. Ramachandra P School of Applied Sciences	Member	
12	Prof. Shilpa B.R School of Applied Sciences	Member	
13	Dr. Payel Dutta Choudhury School of Arts & Humanities	Member	11/6/2021
14	Dr. S Senthil School of Computer Science & Applications	Member	11/6/2021
15	Dr. Vidya Kumari. S School of Performing Arts	Member	11/6/21
16	Prof. Vidya Srikanth (Director In charge) Faculty of Architecture	Member	Vidya Srikanth
17	Dr. Bharathi. S Faculty of Law	Member	11/06/21
18	Dr. Kiran Kumari Patil Director University Industry Interaction Centre	Member	absent
19	Dr. Shinu Abhi Director, REVA Academy for Corporate Excellence	Member	

20	Dr. Ashwin Kumar School of CSE	Member	
21	Dr. Mallikarjun Kodabagi School of C & IT	Member	
22	Mr. Raghu C N School of EEE	Member	
23	Smt. S Saraswathi, Chief Librarian	Member	
24	Shri. Deepak C S, Director-Physical Education	Member	
	Professors		
25	Dr. Jayashree. S School of Applied Sciences(Biochemistry)	Member	
26	Dr. Vishu Kumar M School of Applied Sciences (Mathematics)	Member	
27	Dr. Madhusudan Reddy School of Applied Sciences (Chemistry)	Member	Absent
28	Dr. D.V. Sunitha School of Applied Sciences(Physics)	Member	
	Associate Professors		
29	Dr. Mohammed Riyaz Ahmed School of Multidisciplinary Studies	Member	
30	Dr. K M Sudarshan School of ECE	Member	Absent
31	Dr. M. Subramanyam School of Commerce	Member	
	Eminent Persons Nominated by the Chancellor		
32	Dr. Sridhar Mitta Chairman & Managing Director, Next Wealth Entrepreneurs,	Member	Online
33	Dr. V Ramachandra Vice-President (Technical), Ultra Tech Cement, Mumbai	Member	Absent
34	Dr. Hubert Reilard, Managing Director, EFD Induction Limited, Bengaluru	Member	Online

All the members appreciated with the action taken report and further they stated that, awarding the best teacher, best researcher, best innovator, and best supporting staff is encouraging and it will motivate many faculty and staff. The external members appreciated for conducting virtual farewell to the final year students and inauguration of first year classes of both engineering and non-engineering. The external members praised REVA for organizing the convocation and awarding the degrees even during COVID time and informed that it is a bold step and students will be benefitted who are taking employment and higher studies after their graduation.

The Council noted the ATR on the decisions of the Academic Council in its meeting held on 06.10.2020 and approved the same.

24.3 - CONFIRMATION OF THE MINUTES OF THE 23rd AC MEETING (Spl) HELD ON 7th Oct, 2020.

The Chairperson of the Council, explained briefly the proceedings of the 5th annual convocation held on 10th Oct, 2020 which was the main and only agenda of the 23rd Academic Council (Spl) meeting held on 7th Oct, 2020. He said that the same was sent to all the members of the Academic Council and also placed as an annexure in the agenda of the current meeting for kind consideration and comments if any, by the august house. There were no comments on the proceedings from the members. Hence the house took the following decision.

All the members unanimously resolved to confirm the proceedings of the twenty third meeting of the Academic Council held on 7th Oct, 2020.

24.4 - NEW CURRICULUM, MODIFICATION, AND PANEL OF EXAMINERS FOR UG AND PG PROGRAMS IN DIFFERENT SCHOOLS

The BoS proceedings which includes new curriculum, modification, and panel of examiners for UG and PG Programs of the Schools, listed below, was placed before the members of the council, by the respective School Directors, for the approval.

1. **School of Electrical and Electronics Engineering** - BoS held on 8th June,2020

   Review of the scheme and syllabus of B Tech in Electrical & Computer Engineering, Electrical & Electronics Engineering, M. Tech in Power & Energy Systems, Ratification of Ph.D. course work

2. **School of Civil Engineering** - BoS held on 21st Nov,2020

   Modification/Revised schemes for UG and PG Programs, to introduce industrial training (internship), to give flexibility to select soft core subjects and also give scope for fast learners, to reduce class room teaching and increase Laboratory component in curriculum, PhD Course work, Open Electives through online courses

3. **School of Mechanical Engineering** - BoS held on 21st Nov,2020

   Preparation / modification to the scheme of instructions and syllabus of UG and PG, Change in the mode of Teaching- Learning process for Open Electives offered, to introduce more number of soft core courses, to keep maximum 3 lab integrated courses in a semester.

4. **School of Electronics and Communication Engineering** - BoS held on 26th Jun, 2020

   Approval of Scheme of Instructions, Review/ Ratification of Syllabus, Approval / Ratification of 2017-21, 2018-22, 2019-23, Handbooks, preparation of the panel of Examiners (internal and external) for UG & PG Courses , Approval of Guide lines and Title of the online courses.

5. **School of Computing and Information Technology (CSE & CSIT)** - BoS held on 10th Feb, 16th Jul, 2020

   Modification/Revision of UG and PG Programs, Preparation of Scheme of Instruction, Scheme of Examination and Detailed Syllabus, Preparation of Panel of Examiners, Approval of swapping of Hard Core Course, Syllabus revision, Conducting of online Internal Assessments, Inclusion of Online courses- (Noncredit but mandatory), Reducing no. of Internal Assessments from 3 to 2, Change in IA components and weightage of Internal Assessment (IA) and Semester End Examination (SEE) for 2020-21

6. **School of Applied Sciences (Physics, Chemistry and Biochemistry)** - BoS held on 6th July and 30th, 15th Jun,2020

Modification/Revision of Scheme of Instruction and Syllabus of UG and PG Programs, Inclusion of new open elective, scrutinizing the content for practical's, reframing, shuffling of courses, adding and removal of few courses

7. **School of Performing Arts** - BoS held on 22nd Jul,2020

   Preparation of Scheme of Instruction and detailed Curriculum of MPA in Bharatanatyam / Kuchipudi / Mohiniattam / Odissi / Kathak, BA (Performing Arts), Diploma and Certificate programs offered and Modification of Code Numbers of courses

8. **School of Architecture** – BoS held on 13th Jan,2020

   Launching of two PG and one UG programs in the academic year 2021.

   Scheme and Syllabi for all the three new programs were discussed.

   Scheme and brief syllabus for Ph.D. coursework was discussed for approval.

9. **School of Multidisciplinary Studies** – BoS held on 26th June 2020

   Approval of Scheme of Instructions and I Year Syllabus of 2020-22 Batch of M Tech. Digital communication and Networking (DCN).

   Nomination of Panel of Board of Examiners (BoE) - Internal and external.

After due deliberations the Council resolved to approve the proposals brought out in the BoS meetings of all Schools for their UG and PG programs proposed for the academic year 2020-21.

24.5 - SCHEME, CURRICULUM OF 1ST YEAR B. TECH IN ALL PROGRAMS AND THE INTRODUCTION OF 160 CREDITS FROM THE ACADEMIC YEAR 2020-2021, COMMON COURSES (HIGHER SEMESTER)

Dean Planning and Development, Dr. DVS Bhagavanulu, presented before the Council the Scheme, Curriculum of 1st Year B. Tech in all Programs and the Introduction of 160 Credits from the Academic Year 2020-2021, and Common Courses (Higher Semester)

Modification/Revision of Scheme of Instruction and Syllabus of UG and PG Programs, Inclusion of new open elective, scrutinizing the content for practical's, reframing, shuffling of courses, adding and removal of few courses

7. **School of Performing Arts** - BoS held on 22nd Jul,2020

   Preparation of Scheme of Instruction and detailed Curriculum of MPA in Bharatanatyam / Kuchipudi / Mohiniattam / Odissi / Kathak, BA (Performing Arts), Diploma and Certificate programs offered and Modification of Code Numbers of courses

8. **School of Architecture** – BoS held on 13th Jan,2020

   Launching of two PG and one UG programs in the academic year 2021.

   Scheme and Syllabi for all the three new programs were discussed.

   Scheme and brief syllabus for Ph.D. coursework was discussed for approval.

9. **School of Multidisciplinary Studies** – BoS held on 26th June 2020

   Approval of Scheme of Instructions and I Year Syllabus of 2020-22 Batch of M Tech. Digital communication and Networking (DCN).

   Nomination of Panel of Board of Examiners (BoE) - Internal and external.

After due deliberations the Council resolved to approve the proposals brought out in the BoS meetings of all Schools for their UG and PG programs proposed for the academic year 2020-21.

24.5 - SCHEME, CURRICULUM OF 1ST YEAR B. TECH IN ALL PROGRAMS AND THE INTRODUCTION OF 160 CREDITS FROM THE ACADEMIC YEAR 2020-2021, COMMON COURSES (HIGHER SEMESTER)

Dean Planning and Development, Dr. DVS Bhagavanulu, presented before the Council the Scheme, Curriculum of 1st Year B. Tech in all Programs and the Introduction of 160 Credits from the Academic Year 2020-2021, and Common Courses (Higher Semester)

He explained that there are two cycles and the total intake of the Engineering students of different programs are divided in to two cycles. The Engineering Drawing will be manual in case of Civil Engineering students and whereas for other programs, it will be computer aided engineering drawing. The biology for Engineers will be taught online and Entrepreneurship and design thinking courses will be dealt by respective schools. He informed all the members that the coding system for the 2020-21 batch should be followed as per the previously followed procedure.

Cycle 1: CSE, CE, ME, Mechatronics (1020 students)

Cycle 2: ECE, ECM, EEE, AI&ML, CSSE, IS, EECM, Bioelectronics (1020 students)

The common courses for all programs identified and distributed as per the cycles in the higher semesters are also presented.

The code numbers for different courses to be given by the respective Chairperson, BoS. All the members of the board approved the scheme and syllabus of the first of engineering programs.

He also informed that common courses have been identified and they are distributed in 3rd, 4th, 5th and 6th semester for the cycles considered. All these courses have been identified to meet the percentage of credits required as per AICTE.

Common Courses

S. No.	Course	Discipline	Credit Distribution			
			L	T	P	Credits
1	Indian Tradition and Culture	SS	1	0	0	1
2	Environmental Science	SS	2	0	0	2
3	Indian constitution and Professional Ethics	LAW	2	0	0	2
4	Communication Skills	HU	2	0	0	2
5	Technical Documentation (school specific)	HU	1	0	0	1
6	Management Science	MGT	2	0	0	2
Total Credits			-	-	-	11

24.6 - APPROVAL OF ACADEMIC REGULATIONS OF ALL PROGRAMS (2020-21)

Dr. DVS Bhagavanulu, presented and requested for ratification and approval and also for the implementation of the Revised Academic Regulations, applicable for the academic year 2020-21 onwards, for the following programs:

1. B. Tech Degree Programs
2. M. Tech Degree Programs
3. 5 Years Bachelor of Architecture Degree Program
4. 2 years Master's Degree Programs (MA, M Com, MPA & M. Sc)
5. Bachelor Degree Programs (Non Engineering)
6. 2 Years Master of Computer Applications (MCA) Degree Program
7. 2 Years Master of Business Administration(MBA) Degree Program
8. Doctoral (Ph. D) Degree Program
9. 5 Years Integrated Bachelor Degree in Law(Hons) Program

Dean, Planning and Development, explained about the regulations to be implemented form 2020-21. He said that all the programs have core courses, hardcore courses, soft-core courses, foundation courses, open electives, and project work for Engineering and other programs wherever applicable. The pass criteria have been kept at 40% for all the programs including PG programs. Students have to undertake online courses as per the recommendation of the BoS chairperson and based on the contact classes the credits will be awarded. If the online courses are for 4 weeks, 1 credit will be awarded, if it is 8 week course, then 2 credits will be awarded, if it is for 12 weeks, then 3 credits will be awarded. He has also informed that the score obtained in NPTEL will be directly considered for grade obtained by the student. If student bring the course completion certificate from the online aggregator, a separate test will be conducted for the students in that course and grade will be awarded. It is also mentioned that 2 credit and 1 credit courses will be evaluated for 50 marks only. A grievance committee is constituted for the benefit of the students to resolve problems in evaluation. Provision of challenge valuation is given for UG students and double valuation system is introduced for PG students. Total duration of the program for the students to complete is double the program of study.

Dean Planning and Development also presented the regulations for Ph.D. program to be implemented from the academic year 2020-21. He informed that the minimum duration to complete the research work is 3 years and maximum is 6 years. The scholars can take 2 more years additional period, for work, if they have any health issues and permitted only after the approval from the Doctoral Committee members.

During the research work, each scholar should publish not less than 3 research papers in Scopus indexed journals. A faculty can guide not more than 8 scholars at a time, and he should be a regular faculty of the University. The course work has been revised and every scholar should complete 14 credits and the courses like Research Methodology, Research Ethics and a program specific course are mandatory.

24.7 - APPROVAL OF DECENTRALIZATION OF EXAMINATION SYSTEM (2020-21)

The Controller of Examinations Dr. Beena. G presented the SOP, which has been prepared as a ready reckoner for quick reference for the School team at each of the Centre's of Examination. She said the main focus of the entire process of Decentralization has been to ensure that we have a transparent and efficient process that makes Examination and Assessment a robust, objective, transparent and scalable model apart from making it technology efficient. Will reduce manual intervention. The revised process is an outcome of the feedback and suggestions given by the Directors and other competent authority of the University to bring in a new, decentralized model of assessment and evaluation. The SOP contains details on the bifurcation of responsibilities, duties of each officer and guidelines for both Pen & Paper and Tab Based assessments with due integration apart from detailed notes on process guidelines with the related software. She concluded saying it is hoped that the manual will help each School Centre to prepare for the revised model of assessment.

Following main points of the SOP was placed before the Council for approval.

Structure of Conducting Examinations: which gave an overview of the flow line for delegating responsibilities in the respective School Centre's for Examinations. This included for both Pen Paper and Tab Based Examinations.

Notification of Centre: The University shall notify the Examination centre for conduct of Practical examinations and Viva voce examinations at least forty five days prior to the Practical examinations.

Appointment of Chief Superintendent: The Director of the School shall be appointed as the Chief Superintendent for conduct of Practical examinations and Viva Voce by the Controller of Examinations.

Appointment of Examiners: The Director of the School, shall appoint Internal and External examiners for Practical and Viva Voce examinations for different Centers from the panel of examiners submitted by the

- Statement of the Candidate
- Report of the Chief Superintendent
- Report of the Squad / Observer
- Show cause Notice
- Invigilator Duty List
- Summary Report – Day Wise At Exam Center

Section 5: Software Process document - The details of support provided from Logisys Software is mentioned for information of all the office bearers.

The external member, Dr V Ramachandra, raised concern if the confidentiality aspects and sanctity of the examination process would be affected, given the decentralization process. It was clarified that the entire system will be still controlled by the office of COE. It's only the execution part of the process in which the Schools will be involved in terms of Human resource and few other aspects.

He appreciated the work carried out and the Council approved the same.

24.8 - INTRODUCTION OF NEW PROGRAMS (2021-22)/ NEW CERTIFICATION PROGRAM

The Chairperson, Dr. M. Dhanamjaya put forward before the council the list of new programs that the University is planning to start for the 2021-22 academic year. He listed out the 5 UG engineering programs, 8 Non Engineering programs, 5 PG programs, and 1 Certification Programs, with the new intake decided.

Sl. No	Programs	Intake
I	**UNDER GRADUATE PROGRAMS**	
1	B. Tech. CSE (IOT) *	60
2	B. Tech. CSE (Cybersecurity) *	60
3	B. Tech. CSE (Data Science) *	60
4	B. Tech. ECE (Robotics & Automation) *	60
5	B.Design *	40

	(I) UG Total	**280**
II	**POST GRADUATE PROGRAMS**	
6	M. Arch *	20
	(II) PG Total	**20**
III	**UG Non-Engg. Programs**	
7	BBA (Specialization) *	180
8	B.Com (Specialization) *	180
9	B. Sc (Multimedia & Animation) *	60
10	B. Sc (Cyber Security) *	60
11	BA JMC *	60
12	BA English (Honours) *	60
13	BA (Honours) - Music, Dance, Theatre *	60
14	B. Sc (Radiology & IT) *	60
15	B. Sc (MCG - Genetics) *	60
16	B. Sc (Nutrition & Deictics) *	60
	(III) UG Non-Engg. Total	**840**
IV	**PG Non-Engg. Programs**	
17	LLM - Criminology *	20
18	M. Plan *	20
19	M. Sc in Data Science*	60
20	M. Sc in Data Science & Artificial Intelligence *	120
21	M. Sc Microbial Technology *	60
22	M. Sc Bio Informatics *	60
	(IV) PG Non-Engg. Total	**340**
	GRAND TOTAL (I to IV)	**1480**

New Certification Program

PG Certification on IoT

School of ECE	PG Diploma/Certification in IoT	One year (12 Months)	• Any UG with duration of three/four years with a minimum of 50% (45% in case of candidates belonging to SC and ST) marks in aggregate of any recognized university/ institution or any other qualification recognized as equivalent there to. • Industry experience will be preferred in admissions.	NA

Chairperson of the academic Council also conveyed to the members the following two important decisions taken:

A. **Change in Nomenclature :** He requested for approval of the Council on decision taken to change the name of the program, M.Sc. Computer Science to M.Sc. Data Science offered by School of Computer Science and Applications

B. **Increase in intake:** It was put forward before the Council, the decision taken to increase the intake for the following programs.

School of Commerce	- B.Com - Additional intake of 180
School of Management	- BBA - Additional intake of 180
School of Computer Science and Applications	- BCA - Additional intake of 120

The members felt very happy to see the University is growing by adding new programs which are in demand and increasing the intake for the existing programs. The external members congratulated the management and Vice Chancellor In charge for the same.

24.9 - ANY OTHER WITH THE PERMISSION OF THE CHAIR

A. PROPOSAL FOR COMMENCEMENT OF NEW SCHOOL - SCHOOL OF ALLIED HEALTH SCIENCES

Assistant Director Dr. Jayashree. S of School of Applied Sciences presented before the Council, Proposal for Commencement of New School - School Of Allied Health Sciences. She explained, Allied Health Sciences is very important in the Health care industry as it goes hand in hand with the medical profession. The courses provides hands on training to students along with a sound foundation in science. REVA University has initiated the School of Allied Health Sciences considering the upcoming "The National Commission" for Allied and Healthcare Professions Bill, 2020 soon to be passed in parliament by Government of India 2021. India will need over 5 million qualified health workers by 2030. The overall skill gap is greater than 97% across various health workforce categories according to the recent study findings by Public Health Foundation of India for Ministry of Health and Family Welfare. The third-largest group of Health care professionals consists of radiological technologists, surpassed in number only by doctors and nurses.

REVA Health Centre realizing the need of academically trained Allied Health Care professionals has planned to provide the following courses:

REVA Allied Health Sciences Degree Programs – (2021 –22)

Programs	Duration	Seats
B. Sc MLT (Medical Laboratory Technology)	3 Years (6 Semesters)	30
BSc Medical Radiology and Diagnostic Imaging	3 Years (6 Semesters)	30
B. Sc Nutrition and Dietetics	3 Years (6 Semesters)	30
DMLT (Diploma in Medical Laboratory Technology)	2 Years (4 Semesters)	30

Eligibility for REVA Allied Health Sciences Degree & Diploma Programs (2021 –22)

The candidate should have passed XII (12th) Science or an equivalent examination with Physics, Chemistry and Biology with an aggregate of minimum 40% marks. For reservation category (SC/ST/OBC/Minority) an aggregate of 35%marks in Physics/chemistry and Biology is required. Candidates who passed 10+2 of CBSE or any other board with Medical laboratory technology (as a vocational course) are also eligible.

External member, Dr. V Ramachandra, was very happy to hear about the initiative taken to start the School of Allied Health Sciences. He congratulated on the same and said as the current scenario demands for the same students opting and studying these courses, will have a good chance of getting placed and to build their career.

B. SCHOOL OF COMPUTER SCIENCE AND ENGINEERING (CSE) and SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGY (C & IT) - BOS COMMITTEE / BOE COMMITTEE / ACADEMIC COMMITTEE

The School of Computer Science and Engineering (CSE) and School of Computing and Information Technology(C & IT) placed the newly constituted BOS / BOE and Academic Committee members list before the Council.

The List of the members of BOS / BOE and Academic committee was approved by the members of the Council.

C. PROPOSAL FOR COMMENCEMENT OF NEW SCHOOL - REVA BUSINESS SCHOOL

Director of the School of Management Studies Dr. Shubha .A, put forward the proposal to start the REVA Business School (REVA B- School).

She said, Master of Business Administration (MBA) Program at REVA Business School is designed keeping in view the current prevailing situation and the future trends and developments .The Program is designed keeping in view the volatility of the business environment and as we all know the Industry 4.0 is bringing Artificial Intelligence , Robotics and Machine learning . Artificial intelligence is going to change the future indeed. The future managers are expected to understand and perceive the changes and also keep themselves updated about the future .The future of Management Education is to understand the skill sets that are required by the Management graduate and accordingly acquiring those skills .Management education today should emphasize on the future trends, requirements of the stake holders and by benchmarking ourselves with Universities across the globe offering Management education.

The courses are designed to give more focus on core management philosophies and principles but also gives thrust on emerging areas in the Finance, Human Resources, International Business, Marketing, Entrepreneurship and Operations Management facilitating students to choose specialized areas of their interest, adequate care has been taken to provide students with knowledge of current trends and advanced knowledge in the emerging areas.

Increased Strategic Partnerships with market research firms, growth in technology, online collaborations among stake holders, Virtual organizations and offshoring have today gained key place in global environment. The communication and information technology revolution, socio-economic and political changes led to global marketing have brought in greater transformation in the global market.

MBA curriculum offered at REVA B – School is contemporary in nature and students get an opportunity to experience the Technology enabled teaching learning process which is facilitated through our well-equipped digital classrooms. Students can choose from the wide range of soft cores offered through the specializations they choose to opt for. Every semester skill enhancement courses are been offered to give students the hands on experience and which forms a part of their curriculum. Teaching pedagogy involves case study method, self-learning tools, activity based learning, simulations, Project based learning, case debates, presentations and e- assignments. Students also take up MOOCs courses involve themselves in summer internship and Major project.

Master of Business Administration is a post graduate degree in Management which primarily aims at ensuring that the graduates who complete their courses in a chosen domain are competent enough to manage corporate activities like Human Resources, Finance, Marketing, Entrepreneurship, International Business and Operations Management to run a company on a day to day basis to meet management objectives.

Management Education focuses on varied domain where students can specialize in desired areas of interest thus ensuring that each student is able to gain competence in the general principles of management as well as develop a deeper understanding in the emerging areas. Since every industry, including industries like health care, Hotel Management, Entertainment, Transportation and so on has become more business-like with the participation of corporate houses and business conglomerates, management education today opens many opportunities for students. Through internships, field work, Major project where in by networking with industry experts and other professionals, students can understand the problems, analyse and suggest solutions. The management education provided a holistic understanding of the business environment.

In this disruptive digital economy, high quality management education is essential and this should enable students to gain knowledge, exposure, skills and develop confidence that is essential for a leader to take initiative and responsibility.

The members of the Council congratulated REVA University, the Director and the team of School of Management for the proposal made to start the new B School and approved the same.

D. COMMON COURSES FROM SCHOOL OF ARTS HUMANITIES & SOCIAL SCIENCES – COURSE CODING, CREDITS & EVALUATION

Dr. Payel Dutta Chowdhury, Director School of Arts, Humanities and Social Sciences, presented common courses offered by the School, to the students of B.Com., BBA, BCA, B.Sc. Hons, B.Sc. Applied Sciences, BA PaEP, BA JEP, BA PEJ, BA THJ

She explained about the uniformity in course code, course title, course type, LTP pattern, total credits, and contact hours of Communicative English – I and Communicative English – II offered to students of first and second semester and uniformity in course code, course title, course type, LTP pattern, total credits, and contact hours of Language courses – Kannada, Hindi, and Additional English offered to students of first, second, third, and fourth semesters for all UG programs in Non-engineering Schools.
She also explained about the pattern of examination and total marks for 2 credits and 1 credit theory courses – IA1, IA2, SEE. It was explained that with effect from the academic year 2021-22, the common courses – Communicative English I, Communicative English II and Language courses – Kannada, Hindi, and Additional English will be offered with the specified course titles, course type, LTP pattern and weekly contact hours across all schools.

Dr. Beena G, thanked all members for attending the meeting and making positive contributions for the development of the University.

The meeting ended with thanks to the Chair.

Registrar

Vice-Chancellor (i /c)

AGENDA 25.3 - New Curriculum, Modification, Panel of Examiners in different Schools for different Programs

The BoS proceedings which includes new curriculum, modification, and panel of examiners for UG and PG Programs of the Schools, was placed before the members of the council, by the respective School Directors, for the approval.

SCHOOL OF CIVIL ENGINEERING - Presented by the School Director - Dr. Ramalinga Reddy
Proposal for the scheme of curriculum for the B. Tech program (II, III and Final Year) for the batch of 2020-21 in Civil Engineering

- Modification and Revision of the curriculum of PG programs:
    1) M. Tech in Construction Technology and Management
    2) M. Tech in Transportation Engineering and Management
    3) M. Tech in Computer Aided Structural Engineering
- Appointment of Board of Examiners.
- Minutes of BoS

SCHOOL OF MECHANICAL ENGINEERING - Presented by the School Director - Dr. Narayanaswamy
Proposal for the scheme of curriculum for the B. Tech program (II, III and Final Year) for the batch of 2020-21 in Mechanical Engineering and Mechatronics.

- Modification and revision of the curriculum of PG program.
    1. M. Tech in Machine Design
- Appointment of Board of Examiners.
- Minutes of BoS

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING - Presented by the School Director (I/c) Dr. Ashwinkumar U. M
Proposal for the scheme of curriculum for the B. Tech program (II, III and Final Year) for the batch of 2020-21 in Computer Science and Engineering and New Curriculum for UG program in Artificial Intelligence and Data Science for the newly joining batch 2021-22

- Modification and revision of the curriculum of PG program.
    1. M. Tech in Computer Science and Engineering
    2. Appointment of Board of Examiners.
- Minutes of BoS

SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGY - Presented by the School Dep. Director Dr. M.Kodabagi

Proposal for the scheme of curriculum for the B. Tech program (II, III and Final Year) for the batch of 2020-21 in CSSE, ISE, CSE(AI and ML) and CSIT.

- Modification and revision of the curriculum of PG programs.
    1. M. Tech AI
    2. M. Tech Cyber Security
- Appointment of Board of Examiners.
- Minutes of BoS

SCHOOL OF ELECTRONICS & COMMUNICATION ENGINEERING - Presented by the School Director - Dr. Rajashekar Biradar

Proposal for the scheme of curriculum for the B. Tech program (II, III and Final Year) for the batch of 2020-21 in Electronics and Communication Engineering and Electronics and Computer Engineering & Proposal of new curriculum in Robotics and Automation for the newly joining batch in 2021-22.

- Modification and revision of the curriculum of PG program.
    1. M. Tech in VLSI
- Appointment of Board of Examiners.
- Minutes of BoS

SCHOOL OF ELECTRICAL & ELECTRONICS ENGINEERING - Presented by the School Director (I/c)– Dr. Raghu C N

Proposal for the scheme of curriculum for the B. Tech program (II, III and Final Year) for the batch of 2020-21 Electrical and Electronics Engineering and Electrical and Computer Engineering

- Modification and revision of the curriculum of PG program.
    1. M. Tech in Power and Energy systems.
- Appointment of Board of Examiners.
- Minutes of BoS

SCHOOL OF ARCHITECTURE - Presented by the School Director I/c - Prof. Vidya Srikanth

Proposal of the curriculum of VII to X semester of 2018 and 2019 batches of Architecture.

- Detailed syllabus from VII to X semester 0f 2020-21 batch of Architecture.
- UG Curriculum for 2021-22 batch from I to X semester
- Minutes of BoS

SCHOOL OF COMMERCE - Presented by the School Director Dr. Shubha A

- Course matrix of B.Com (II), B.Com (H) and M.Com
- Approval of Course work curriculum for Ph.D.
- Specializations offered for B.Com – II, B.Com –H, M.Com
- Introduction of New Coding Pattern – Course Codes

- Open electives for UG and PG programs.

SCHOOL OF MANAGEMENT STUDIES - Presented by the School Director Dr. Shubha A

- Course matrix of BBA (II), BBA (H) and MBA
- Approval of Course work curriculum for Ph.D. – 2021 batch
- Specializations offered for UG and PG programs
- New Coding Pattern – Course Codes
- Open electives for UG and PG programs

SCHOOL OF ARTS, HUMANITIES AND SOCIAL SCIENCES - Presented by the School Director Dr. Payel Dutta Chowdhury

Revision and preparation of the curriculum for

UG Programs

1. BA English (Honors)
2. BA JMC (Honors)
3. BA JEP
4. BA PEJ
5. BA THJ

PG Programs

1. M. Sc Physcology
2. MA English
3. MA J and C

SCHOOL OF PERFORMING ARTS AND INDIC STUDIES - Presented by the School Director Dr. Vidya Kumari S

- Preparation of Scheme of Instruction and detailed Curriculum of MPA in Bharatanatyam/Kuchipudi/Mohiniattam/Odissi/Kathak
- Preparation of Scheme of Instruction for BA (Hons-Performing Arts)

SCHOOL OF COMPUTER SCIENCE AND APPLICATIONS - Presented by the School Director Dr. Senthil S

- Presentation and Approval of scheme and first year Syllabus of Bachelor of Science in Computer Science with specialization in Cyber Security
- Presentation and Approval of scheme and first year Syllabus of Bachelor of Science (Hons.) in Computer Science with specialization in Multimedia and Animation
- Presentation and Approval of scheme and first year Syllabus of M. Sc (Data Science)
- Presentation and approval of Scheme and Syllabus of M.SC (Cloud Architecture and Security)
- Presentation and approval of Scheme and Syllabus of PG Diploma in Enterprise Resource Planning
- Approval of Course work curriculum for Ph.D.
- Introduction of New coding pattern – course codes

SCHOOL OF APPLIED SCINCES

Revision of credits and proposal of the new curriculum for the UG and PG programs.

Department of Biotechnology - Presented by Deputy Director Prof. Shilpa B R

PG Programs

1. M.Sc. (Microbial Technology)
2. M.Sc. (Bioinformatics)
3. M.Sc. (Biotechnology)

UG Programs

1. B.Sc. (Bioinformatics, Statistics and Computer Science)
2. BSc Microbiology, Chemistry & Genetics (CMG)
3. B. Sc Biotechnology Biochemistry Genetics

Department of Chemistry - Presented by Asst Director Dr. Madhusudana Reddy

PG Programs

1. M. Sc Chemistry

UG Programs

1. B. Sc Chemistry

Department of Physics - Presented by Asst Director Dr. Sunitha D V

UG Program

1. B. Sc–PMCs (Physics, Mathematics and Computer Science)

PG Program

1. M.Sc Physics

Department of Mathematics - Presented by Asst Director Dr. Vishu Kumar M

UG Program

1. B.Sc Mathematics, Statistics and Computer Science

PG Program

1. M.Sc Mathematics

SCHOOL OF ALLIED HEALTH SCIENCES - Presented by Dr. Jayashree S, Professor and Head, Allied Health Sciences

Proposal of New Curriculum for the UG Programs and Revision of Curriculum for PG Program:

UG Programs

1. B. Sc Medical Laboratory Technology
2. B. Sc Medical Radiology and Diagnostic Imaging
3. B.Sc Nutrition and Dietetics

PG Program

1. M. Sc Biochemistry

SCHOOL OF LEGAL STUDIES - Presented by the School Director Dr. Bharathi S

Proposal of the new curriculum for the PG programs in Criminology (LLM)

After due deliberations, the Council resolved to approve the proposals brought out in the BoS meetings of all Schools for their UG and PG programs proposed for the academic year 2020-21.

Scholars of Engineering and Applied Sciences shall have at least one publication in Q1/Q2/Q3 listed journals while the research scholars of other disciplines shall have at least one publication in Scopus/ Web of Science (WoS) indexed journal.
Notwithstanding the indexed publications, the doctoral committee shall consider the original contributions and the quantum of work for the award of PhD degree to the candidate.

The members of the Academic Council noted the changes made in the regulations for Ph. D program and approved the same.

AGENDA 25.10 - Introduction of Kannada in all Engineering Programs

Registrar Dr. N. Ramesh was invited by the Vice Chancellor to brief on the agenda point- Introduction of Kannada in all Engineering Programs. He said, to provide basic understating of local language for the other state students and an advanced course in Kannada for the local students, a mandatory course in Kannada has been introduced for the students of 2020-21 batch. The aim of introducing Kannada is to provide basic understanding and make non-Kannada student to converse in Kannada.

The syllabus framed for both Kannada and Non Kannada Speaking students was put forward before the Council for approval.

The members went through the syllabus framed and approved the same to go ahead with.

AGENDA 25.11 - **Introduction of course on NCC for all the UG Programs as Open Elective**

The Vice Chancellor put forward before the Council the course details of NCC being introduced for all UG programs as Open Elective.

Course objective – To develop character, discipline, comradeship, secular outlook and to create a pool of trained, organized and motivated youth with various leadership qualities.
Syllabus
Unit-1- National Integration and Awareness
Unit-2 –Protocols in drill
Unit-3- Personality Development
Unit-4 - Disaster management & Community Development

The Council appreciated and approved the same.

AGENDA 26.3 - New Programs – UG / PG /Certification/Diploma/PG diploma

The Vice Chancellor put forward before the Council the third agenda- Introduction of new UG/PG, Certification, Diploma and PG Diploma programs from the academic year 2021-22. The programs offered are listed below.

Sl.No	School	Program
1	School of Applied Sciences	1 Diploma Program
2	School of Computing and Information Technology	1 PG Diploma Program
3	School of Computer Science and Applications	1 UG Program
4	School of Arts Humanities and Social Sciences	1 UG Program
5	School of Architecture	1 M Arch and 2 Certification Programs
6	School of Computer Science and Engineering	13 Certification Programs

Details of the New Program are as below.

Name of the School	Title of the Program	Duration of the Program	Credits
School of Applied Sciences – Department of Biotechnology in association with MOMSOON Academy Pvt. Ltd.,	Diploma in Clinical Embryology and Artificial Reproductive Technology	8 Months	30
School of Computing and Information Technology	PG Diploma in Artificial Intelligence & Machine Learning	One year	40
School of Computer Science and Applications	Bachelor of Science in Computer Science with specialization in Multimedia and Animation	3 years (Six Semesters)	120
School of Arts, Humanities and Social Sciences	Bachelor of Arts (Journalism, Mass communication)	3 years (Six semesters)	120
School of Architecture	M. Arch (Environmental architecture) Syllabus is approved. Regulations need to be presented at ACM for approval	2 years full time	80
	Certification course in Interior Design Syllabus to be presented in ACM for approval	16 weeks	NA

	Certification course in Smart City Planning Syllabus to be presented in ACM for approval	16 Weeks	NA
School of Computer Science and Engineering	AWS: Certified Solutions Architect Professional	50 Hours	4
	Google: Certified Professional Cloud Architect	50 Hours	4
	Microsoft: Azure Data Engineer	50 Hours	4
	EC Council: CHFI Certified Hacking Forensics Investigator	50 Hours	4
	Google: Associate Cloud Engineer	50 Hours	4
	IBM: Certified System Administrator	50 Hours	4
	Microsoft: Advanced MS Excel	50 Hours	4
	Redhat: Micro services Certification	50 Hours	4
	Cloud Credential Council: IOT Certification	50 Hours	4
	Microsoft: Azure Administrator	50 Hours	4
	C++ Programming for Automotive Applications	32 Hours	2
	MATLAB for Scientific Computing	32 Hours	2
	Ethical Hacking	32 Hours	2

Prof. Shilpa, Deputy Director - School of Applied Sciences, Dr. Mallikarjun Kodabagi, Deputy Director School of Computing and Information Technology, Dr. Ashwin Kumar, Deputy Director, School of Computer Science and Engineering, Dr. Senthil, Director School of Computer Science and Application, Dr. Payel Dutta Chowdhury and Prof. Vidya Srikanth, Director In charge School of Architecture explained in detail about the duration, credits and curriculum of the new programs the respective schools will be offering. The heads of the Schools also told the members that the proposed programs with detailed scheme and curriculum were put forward before the respective BoS and the approval was taken from the Board after deliberations and changes made as suggested.

The members of the Council appreciated the progress REVA is making in terms of Academics by introducing new Certificate courses, Diploma and PG Diploma programs. All the members approved the new programs proposed.

REVA UNIVERSITY
Bengaluru, India

Proceedings

of

BOS Meeting

2021-22

REVA UNIVERSITY
Bengaluru, India

School of Computing and Information Technology

BOARD OF STUDIES MEMBERS LIST

Academic year 2021-22

B.Tech in CSSE/ISE/AIML/CSIT

Sl. No.	Name	
1	Dr. Mallikarjun M. Kodabagi Professor and Dy. Director School of School of Computing and Information Technology, REVA University	Chairperson
2.	Dr. Muthukumar B Professor School of Computing and Information Technology, REVA University	Member
3.	Dr. Geetha D Professor School of Computing and Information Technology, REVA University	Member
4.	Priyadarshini Nag Product Assurance Manager, TCS	Industry Expert
5	Dr. Shashidar Koolagudi Assoc. Professor and Head, Department of CSE NITK, Surathkal.	External Academic Expert
6.	Mr. Santhosh, Software develop, Delloitte	UG – Alumni Member
7	Mr. Sumukha	Student-Member
8.	Ms. Poojashree	Student-Member

Director

Registrar

Vice Chancellor

29/3/2023

DIRECTOR

School of Computing and Information Technology
REVA University Rukmini Knowledge Park
Kattigenahalli, Yelahanka, Bangaluru-5600054

REVA UNIVERSITY
Bengaluru, India

SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGY

PROCEEDINGS OF BOARD OF STUDIES MEETING

(29-5-2021)

Proceedings of the Board of Studies meeting held on 29-05-2021 at 10:30am in School of Computing and Information technology, Swami Vivekananda Block, REVA University, Rukmini Knowledge Park, Bengaluru – 560 064.

Members Present:

Sl. No	Name of the Member	Role/Designation
1.	Dr. Dhanamjaya M. REVA University	Vice-Chancellor
2.	Dr. Bhagavanulu, REVA University	Dean, IQAC
3.	Dr. Sunil Kumar S Manvi, School of C&IT and School of CSE, REVA University	Chairman
4.	Dr. Mallikarjun M Kodabagi, Professor and Asst. Director School of Computing and Information Technology	Vice Chairman
5.	Dr. Vishwanath R Hulipalled, Professor School of C&IT	Member
6.	Dr. Udaya Rani V, Professor School of C&IT	Member
7.	Dr. Parthasarathy G, Associate Professor School of C&IT	Member
8.	Sreenivasa Ramanujam Kanduri, Academic Relationship Manager, TCS	Member (Industry Expert)
9.	Dr. S. A. Angadi, Professor, School of CSE,VTU	Academic Expert
10.	Dr. Bharati Arakeri, Professor, School of CSE BMSIT, Bangalore	Academic Expert
11.	Prasad Chitta, Solution Architect, TCS Bangalore	Member (Industry Expert)

Members Not Present:

1.	Dr. Sundar K S, Associate Vice-President & Head, IMS Academy at Infosys	Member (Industry Expert)
2.	Dr. Ramabrahmam, Gunturi Consultant, TCS	Industry Expert
3.	AbhishekRevannaSwamy, Associate Project Manager, Robert Bosch	Alumni Expert

DIRECTOR
School of Computing and Information Technology
REVA University, Rukmini Knowledge Park,
Kattigenahalli, Yelahanka, Bangaluru - 560064

REVA UNIVERSITY
Bengaluru, India

SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGY

BOARD OF STUDIES MEETING

(29-5-2021)

As per the direction of Vice Chancellor, Dr. Dhanamjaya M. and Chairman BoS, Dr. Sunilkumar. S. Manvi, the Board of studies meeting was held on 29/5/2021 at 10:30am in online mode using MsTeams. The agenda and proceedings of the meeting is as follows.

Agenda:

1. Scheme and Syllabus approval of B.Tech/ MTech programs
1. Minor and Honors Degree programs
2. Academic Calendar
3. Course File
4. Faculty Development Programs/webinars/expert and guest lectures
5. Staff Development Programs
6. Skill Development programs/ Certification programs
7. Result Analysis
8. Outreach activities
9. NSS and NCC activities
10. Co-curricular and Extra Curricular activities
11. R & D projects
12. Consultancy/Corporate Training
13. Paper Publications
14. Awards and Rewards
15. Value added programs
16. Course end feedback and program end feedback
17. Parent meet feedback
18. Approval of BoE
19. Any other item with permission of the chair.

Chairperson

Dr. S. S. Manvi

Vice Chairperson

Dr. Mallikarjun Kodabagi

DIRECTOR
School of Computing and Information Technology
REVA University, Rukmini Knowledge Park,
Kattigenahalli, Yelahanka, Bangaluru - 560064

Resolution:

The BoS members reviewed the scheme and detailed syllabi of the proposed B.Tech CSE (AI&ML), B.Tech CSIT, B.Tech ISE, B.Tech CS&SE, M.Tech AI and Scheme for M.Tech Cyber security programs. All the Members of the Board of Studies unanimously accepted the proposal and suggested following points for inclusion, if possible.

Suggestions for BTech CSE(AI&ML):

- The courses Machine Learning, Neural Network and Deep Learning should not be included in the same semester, instead they suggested to have Machine Learning subject in 5th semester and Neural Network and Deep Learning in 6th semester.
- Introduction to AI, Machine Learning and Network and Deep Learning sequence should be followed while offering subjects in different semesters.
- Structured programming language(C) can be taught in 1st semester and object oriented programming (Python) in 2nd semester.
- Suggested to have the subjects like Decision support, Expert Systems and Business Intelligence as a soft cores.
- Advised to have Intellectual Property Right (IPR) topic as part of Technical Documentation, if possible.

Suggestions for BTech CSIT:

- Advised to have Full stack development as soft core and there is a need of studying multi persistent database as requirement of IT industries and to prepare the students to take up the job in development side.
- Suggested to include Storage Area Network, Data Center Technology, Data Mining and Data Warehousing as soft core subjects.

Suggestions for BTech ISE:

- Advised to have ***Information Theory*** subject as Hard core in lower semester as it is basis for the subject ***Information Retrieval***, which we have as a Hard Core in 7th semester.

Suggestions for BTech CS&SE:

- Suggested to include ***Storage Area Network, Parallel Systems and Distributed Computing Systems*** as Elective subjects.

DIRECTOR
School of Computing and Information Technology
REVA University, Rukmini Knowledge Park,
Kattigenahalli, Yelahanka, Bangaluru - 560064.

Dr. Mallikarjun M Kodabagi, Professor & Assistant Director, School of Computing and Information Technology welcomed respectable Vice-Chancellor, Dr. Dhanamjaya M, Dean, IQAC, Dr. Bhagavanulu, Director schools of CSE and CIT, Dr. S. S. Manvi and all the BoS members and faculty members to the Board of Studies meeting.

Dr. Dhanamjaya M., Vice-Chancellor addressed all BoS Members that, the new school of Computing and Information Technology offers various UG and PG programs keeping in mind the demand for engineers in various sectors of industries and government organizations. The school aims at providing high quality engineers offering good quality education to serve the society and nation at large. Therefore, it is necessary to design good curriculum for best quality education. In this regard, he expressed that, all industry and academic expert BoS members to give valuable suggestions to come out with good curriculum for all UG/PG programs.

Dr. Bhagavanulu, Dean, IQAC, expressed that, the valuable suggestions from academic and industry expert BoS members will enable the school to come out with best curriculum. He insisted all to work on all agenda points and give valuable suggestions and told to proceed with the agenda of the meeting.

Dr. Sunil Kumar Manvi, Chairman, Board of Studies shared the expectations of the University that the Curriculum and syllabus should be made more industry and research oriented. He explained that in view of the revolutionary changes in Engineering and Technology education and industry expectations, REVA University wants to introduce a syllabus at UG and PG level to prepare students in thrust areas of today's market requirements. Further, he told Dr. Mallikarjun M Kodabagi to proceed with the agenda of the meeting. Then, the agenda was taken up for further discussion.

Agenda 1:

Approval of scheme and syllabi of B.Tech in Computer Science and Engineering (AI and ML), B.Tech in Computer Science and Information Technology, B.Tech in Computer Science and System Engineering and B.Tech in Information Science and Engineering with 160 credits for 2020-2024 batch. M. Tech in Artificial Intelligence- Full Time for 2020-2022 and M.Tech in Cybersecurity- Full Time for 2021-2023.

Dr. Mallikarjun M. Kodabagi explained that, the programs B.Tech CSE (AI&ML), B.Tech CSIT, B.Tech ISE, B.Tech CS&SE, M.Tech AI and M.Tech Cybersecurity are offered to produce engineers for the future needs of society and country. He told that, the school has prepared detailed scheme and syllabi all programs and the same is placed before the BoS for examining and contributing inputs to fine tune the programs curriculum as per the market requirements. Dr Mallikarjun M Kodabagi presented B.Tech CSE (AI&ML) and B.Tech CSIT scheme and syllabi, Dr. Parthasarathy presented B.Tech ISE an+d B.Tech CS&SEscheme and syllabi, Dr. Vishwanath R. H. presented M.Tech AI scheme and syllabi and Dr. Geetha D presented M.Tech Cybersecurity before committee.

DIRECTOR
School of Computing and Information Technology
REVA University, Rukmini Knowledge Park,

Resolution:

All the members of Board of Studies unanimously agreed and approved Couse File.

Agenda 5:

Faculty Development programs/webinars/expert and guest lectures.

Dr Mallikarjun Kodabagi presented following Faculty Development programs/webinars/expert and guest lectures organized by school.

- Machine Learning, Artificial Intelligence and Beyond
- Academia Industry Interaction, Avenues in Funded Projects & Entrepreneurship
- Robotic Process Automation using UiPath Studio
- Intellectual Property Rights
- Corporate Training Program on AI and ML for DRDO scientists
- Software Testing and Automation
- Radical shift Technologies which can change the world

Resolution:

All the members of Board of Studies agreed and appreciated the conduction Faculty Development programs/webinars/expert and guest lectures.

Agenda 6:

Presentation of Staff Development Programs planned.

Dr Mallikarjun Kodabagi presented following staff Development Programs planned for upskilling office staff and instructors before committee.

- Training on Ms Office
- Network Administration
- OS Installation and Maintenance
- Computer Fundamentals and Maintenance
- Fundamentals of programming
- Database programming
- Web programming

Resolution:

All the members of Board of Studies unanimously agreed and appreciated Staff Development Programs planned.

DIRECTOR
School of Computing and Information Technology
REVA University, Rukmini Knowledge Park,
Kattigenahalli, Yelahanka, Bangalore-560064

Suggestions for M.Tech AI:

- Advised to replace ***Advanced JAVA Programming*** with ***Digital Signal Processing*** and also suggested to include ***application based subjects*** if feasible.
- Suggested to include Research Methodology subject in the curriculum.
- Recommended to include Advanced topic on Language processing.
- Advised to include more AI and ML related soft-core subjects and suggested to remove the subjects which are not related to AI&ML.

The following suggestion are given by BOS member for M.Tech Cyber security:

- Recommended to add topics about Cyber Laws and Policies.
- Suggested to include SIEM (security information and event management) tool as a lab component.

Agenda 2:

Approval of Minor degree in B.Tech CSE (AI&ML) and Honors degree in B.Tech CSE- Cyber security.

Dr. Mallikarjun Kodabagi, told that, minor degree program will be offered to other branch students, so that, they will get opportunity to become software professionals in AI and ML. The students completing the degree will also get benefit of having edge over other students in recruitment drive. The honors degree program is offered to our school students to get another specialization degree in Cyber security to choose their career. The details were presented before the committee for approval.

Resolution:

All the members of Board of Studies unanimously agreed to approve the inclusion of Minor and Honors Degree programs for 18 credits.

Agenda 3:

Academic Calendar presentation.

Dr Mallikarjun Kodabagi presented academic calendar before committee.

Resolution:

All the members of Board of Studies unanimously agreed upon the Academic Calendar.

Agenda 4:

Approval of Course file.

Dr Mallikarjun Kodabagi presented course file before committee for the approval.

DIRECTOR
School of Computing and Information Technology
REVA University, Rukmini Knowledge Park,
Kattigenahalli, Yelahanka, Bangaluru - 560064.

Day 2021, a drawing competition and signing competition was organized for all the students in Mahadev Kodigehalli on 4th January 2021.

Resolution:

All the members of Board of Studies unanimously agreed upon the activities planned and conducted. The committee also appreciated the University moves towards adoption of government school to support development of village school and their students.

Agenda 10:

Presentation of NSS and NCC activities.

Dr Mallikarjun M. Kodabagi told that, the plantation and go green activity was conducted with NSS and NCC at adopted government school.

Resolution:

All the members of Board of Studies appreciated NSS and NCC activities organized by the school and also bringing awareness about ecosystem sustainability measures.

Agenda 11:

Presentation of Co-curricular and Extra Curricular activities.

Dr Mallikarjun M. Kodabagi presented Co-curricular and Extra Curricular activities conducted by the school for the students.

Sl. No.	Event	Event Co-ordinator	Branch,Semester and Section
1	Cricket (M)	1. Aleem Mohammad 2. AshhadAnis 3. Sarath Chandra V	CSIT – 4A CSIT – 4 A AIML – 1 B

DIRECTOR
School of Computing and Information Technology
REVA University, Rukmini Knowledge Park,
Kattigenahalli, Yelahanka, Bangaluru - 560064.

Agenda 7:

Presentation of Skill Development Programs/Certificate Programs organized for 4th sem students.

Dr Mallikarjun M. Kodabagi presented following Skill Development Programs/Certificate Programs organized for 4th sem students before committee.

- Android App Development
- Applied Data Science with Python
- Fundamentals of Industrial AI
- Python for Everybody
- Innovation Through Design

Resolution:

All the members of Board of Studies unanimously agreed and appreciated Skill Development Programs/Certificate Programs organized for the students and one of the BOS member (Sreenivasa Ramanujam, Academic Relationship Manager, TCS) expressed that, he is ready to be a part of Skill Development Programs/Certificate Programs as a resource person if the School requires.

Agenda 8:

Result Analysis of BTech CSIT 3rdsemester(2020-21), MTech AI 3rd semester(2020-21).

Dr Mallikarjun M Kodabagi presented result analysis of BTech CSIT 3rdsemester (2020-21), MTech AI 3rd semester(2020-21).

Resolution:

All the members of Board of Studies agreed upon the performance of the students.

Agenda 9:

Outreach activities organized and planned.

Mallikarjun M Kodabagi presented outreach activates planned and conducted in the school. He informed that, the School of Computing and Information Technology, REVA University has adoptedMahadev Kodigehalli, GOVERNMENT LOWER PRIMARY SCHOOL.

As part of the adoption drive, a Post COVID Awareness camp was conducted at the school along with sapling plantation on 4th January 2021 and marking the occasion of Founder's

DIRECTOR
School of Computing and Information Technology
REVA University, Rukmini Knowledge Park
Kattigenahalli, Yelahanka, Bangaluru - 560064.

- Early detection of fungal diseases I grape vineyard: Remote sensing based high through phenotyping technique
- Symposium/Conference grant
- Soft computing for pattern recognition
- FDP ON RPA
- Development of Smart Trolleys using IoT
- Android operated Quad bot(IOT)
- BYOS Be Your Own Saviour

Resolution:

All the members of Board of Studies unanimously agreed and appreciated the efforts of faculty in writing and submitting funding proposals to various government agencies.

Agenda 13:

Presentation of Consultancy/corporate activities conducted.

Dr. Mallikarjun M Kodabagi presented following consultancy/corporate training activities conducted for industry professionals to generate revenue.

- Corporate training on AI and ML for DRDO scientists
- Corporate training on AI and ML for Industry professions

Resolution:

All the members of Board of Studies unanimously appreciated the efforts and told to offer many more such programs.

Agenda 14:

Presentation of Paper Publications.

Dr. Mallikarjun M Kodabagi presented total publications and overall citations of the school before the committee.

Resolution:

All the members of Board of Studies unanimously appreciated the efforts and told to publish more good quality publications.

Agenda 15:

Presentation of Awards and Rewards by REVA University.

DIRECTOR
School of Computing and Information Technology
REVA University, Rukmini Knowledge Park,
Kattigenahalli, Yelahanka, Bangalore-560064.

2	Basket Ball (M & W)	1. Pratham P 2. AmanTibrewal	CSIT – 4 B AIML – 1 A
3	Foot Ball (M)	1. Joey Sha 2. Solomon Williams	AIML – 1 A AIML – 1 A
4	Volley Ball (M)	1. S SaiAbhinav	AIML – 1 A
5	Throw Ball (M &W)	1. Raghavendra Prasad 2. Sanjana S M 3. Tejas H S	AIML – 1 A AIML – 1 A AIML – 1A
6	Table Tennis (M & W)	1. Shreyas R Magadum	AIML – 1 A
7	Chess (M & W)	1. Varshitha A 2. Shruthi Siva	AIML – 1 A AIML – 1 A
8	Badminton (M & W)	1. Anjana B 2. Mahima B K 3. Rajesh B	AIML – 1B AIML – 1A AIML – 1B
9	Kabaddi (M)	1. Yashas R	CSIT – 1 A
10.	Yoga	Prof. Surendra Babu K N	1st floor Staff room. Room no.119

Resolution:

All the members of Board of Studies appreciated the Co-curricular and Extra Curricular activities planned and conducted to support overall personality development of the students.

Agenda 12:

Presentation of R & D projects submitted to various government funding agencies.
Dr Mallikarjun M Kodabagi presented various funding proposals submitted to government agencies.

- Inventory of horticulture crops using satellite image processing (ISRO)
- Road condition monitoring (DST)
- (K-FIST L1) development of NLP Lab
- FDP on soft computing for pattern recognition
- Recent advancement in Machine Learning based techniques for smart Grid and microgrid
- Instant thermo water heater for drinking
- High Throughput Phenotyping for Early Detection of Fungal infections in Grape Vineyard using Remote Sencinh Techniques

DIRECTOR
School of Computing and Information Technology
REVA University, Rukmini Knowledge Park
Kattigenahalli, Yelahanka, Bangaluru - 560064.

Dr. Mallikarjun M Kodabagi detailed the course end feedback collected from students to understand course content delivery by teachers and suitability of course content. The various parameters of the course end feedback are also detailed to all members of BoS committee.

Resolution:

All the members of Board of Studies unanimously agreed and appreciated the work done for feedback collection which act as basis for syllabus revision.

Agenda 18:

Presentation of parents feedback report.
Dr. Mallikarjun M Kodabagi presented the report of parents feedback and told that 48 parents joined the meet offline on 13 March 2021. He also expressed happiness that all parents are happy about their wards performance and academic conduction of REVA University.

Resolution:

All the members of Board of Studies appreciated the efforts made in reaching parents and making them aware of their wards performance.

Agenda 19:

Approval of BoE committee.
Dr. Mallikarjun M Kodabagi presented following BoE committee list to all members of BoS committee.

Sl. No.	Name		Correspondence Address
1.	**Dr.Sunilkumar S. Manvi** Professor and Director School of CSE and Computing and Information Technology	Chairperson	Rukmini Knowledge Park, Kattigenahalli, Yelahanka, Bengaluru, Karnataka 560064
2.	**Dr.Mallikarjun M Kodabagi** Professor and Asst. Director School of Computing and Information Technology	Vice-Chairperson	Rukmini Knowledge Park, Kattigenahalli, Yelahanka, Bengaluru, Karnataka 560064
3.	**Dr.Vishwanath R Hulipalled** Professor School of C&IT	Member	Rukmini Knowledge Park, Kattigenahalli, Yelahanka, Bengaluru, Karnataka 560064
4.	**Dr.Udaya Rani V** Associate Professor School of C&IT	Member	Rukmini Knowledge Park, Kattigenahalli, Yelahanka, Bengaluru, Karnataka 560064
5.	**Dr.Parthasarathy G** Associate Professor, School of C&IT	Member	Rukmini Knowledge Park, Kattigenahalli, Yelahanka, Bengaluru, Karnataka 560064
6.	**Dr.Thillaiarasu** Associate Professor, School of C&IT	Member	Rukmini Knowledge Park, Kattigenahalli, Yelahanka, Bengaluru, Karnataka 560064

DIRECTOR
School of Computing and Information Technology
REVA University, Rukmini Knowledge Park,
Kattigenahalli, Yelahanka, Bangaluru - 560064.

Dr. Mallikarjun M Kodabagi detailed following policies of REVA University to award and reward the faculty members.

- *REVA University every year recognizes best teachers and achievers and give awards.* Various faculty of the school who have received awards are as below.
  - Dr. Mallikarjun M Kodabagi-Best achiever award
  - Prof. Ravishankar – Best Teacher award
- *The University also rewards faculty members for publishing papers and patents in good quality journals/conferences.*
- *The University awards seed money for good research projects and encourage the faculty and students to develop products and go for commercialization.*

Resolution:

All the members of Board of Studies appreciated the policies of the University in providing the awards and rewards to faculty achievers in teaching learning and research.

Agenda 16:

Presentation of Value added programs.

Dr. Mallikarjun M Kodabagi detailed that the REVA University organizes following value added programs to the students for the overall development.

- Soft skills training for recruitment
- Aptitude training for recruitment
- Technical training for recruitment
- Personality development training
- Life skills training
- Art of living training
- Health training through yoga classes
- Team building training

Resolution:

All the members of Board of Studies unanimously agreed and appreciated Value added programs conducted for the students to upskill them for industry ready. The BOS member (Sreenivasa Ramanujan, Academic Relationship Manager, TCS) is also ready to be a part of Value added programs as a resource person if the School is interested.

Agenda 17:

Presentation of Course end feedback and program end feedback.

DIRECTOR
School of Computing and Information Technology
REVA University, Rukmini Knowledge Park,
Kattigenahalli, Yelahanka, Bangaluru - 560064.

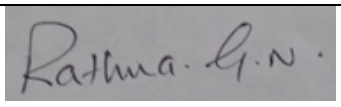
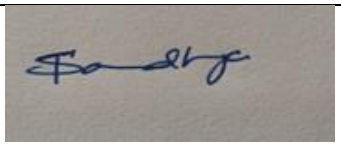
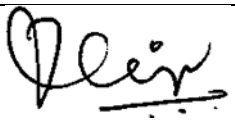
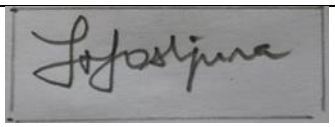
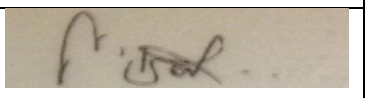
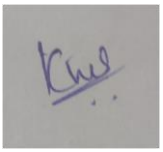
REVA UNIVERSITY
Bengaluru, India

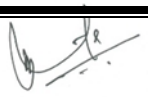
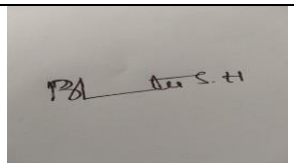
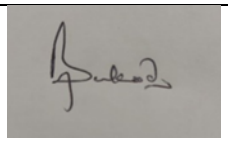
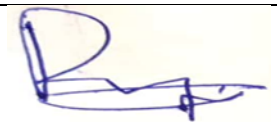
School of Electronics and Communication Engineering

Proceedings of the Combined BoS Meeting

Proceedings of the 9th meeting of the Combined Board of Studies (BoS) in the School of Electronics & Communication Engineering was held on **10h May 2021 virtually** through MS Teams platform during 2.00PM and 5.00PM.

Members Present:

Sl. No.	Name and Affiliation	Status	Signature
1	**Dr. R. C. Biradar** Director, School of ECE, REVA University	Chairperson	
2	**Dr. Rathna G. N.** Principal Research Scientist, E&E Dept., IISc. Bangalore.	Member	
3	**Dr. T. Srinivas** Professor, Electrical and Communication Engineering Indian Institute of Technology Bangalore	Member	
4	**Mrs. Sandhya Thyagarajan** Vice President, SEBUCentum Electronics Ltd	Member	
5	**Dr. G. T. Raju** Principal, SJC Institute of Technology, Chickaballapur	Member	
6	**Mr. Jwalanth Joshipura** Director, SoC Design, NXP Semiconductors India Pvt. Ltd.	Invited Member	
7	**Mr. Raja Krishnamoorthy** Associate Director, Cognizant Technology Solutions, Bangalore	Member	
8	**Dr. K. M. Sudharshan** **Asst. Director School of ECE, REVA University**	Member	

9	**Dr. Manjunath R. Kounte** **HOD ECM, School of ECE** REVA University	Member	
10	**Dr. Bharathi S. H.** Professor, School of ECE, REVA University	Member	
11	**Dr. P. I. Basarkod** Professor, School of ECE, REVA University	Member	
12	**Dr. Prashanth V. Joshi** Assoc. Professor, School of ECE, REVA University	Member	
13	**Dr. Rohini Deshpande** Professor, School of ECE, REVA University	Member	

Alumni Member:

Sl. No.	Name and Affiliation	Status	Signature
1	**Mr. Sumanth B. Pathi** Senior Member of Technical Staff at AMD Bangalore	Alumni	**Absent**

Current Student Member:

Sl. No.	Name and Affiliation	Status	Signature
1	**Mr. Niran** **(**B. Tech. ECE) REVA University, Bangalore.	Current Student	**Present**

Note: This meeting is conducted virtual through MS Teams. Hence, the digital signatures are appended.

The agenda of Board of Studies Meeting

1. Approval of Scheme of Instructions and 3rd and 4th Semester syllabus of 2020-24 Batch of
   a. B. Tech. Electronics & Communication Engineering (ECE) and
   b. B Tech Electronics & Computer Engineering (ECM) 2020-24 Batch. The syllabus of courses is designed based on the bench marking process undertaken by REVA University in the last semester.
2. Approval of scheme of instructions of 2021-25 batch for B Tech in Robotics and Automation
3. Approval of Scheme of Instructions and Syllabus for 7th & 8th Semester B. Tech. ECE 2018-22 Batch.
4. Review/ Ratification of Syllabus for 5th & 6th Semester B. Tech. ECM 2019-23 Batch.
5. Approval of Scheme of Instructions and Syllabus of M. Tech. VLSI & ES (FT) 2021-23 batch.
6. Approval of minors and Honors for 2021 batch.
7. Approval of Scheme of Instructions and Syllabus of Post Graduate Certificate Programme in Internet of Things.
8. Approval of panel for BoE and list of examiners.
9. Approval of Academic Calendar, Lesson plan format, Scheduling of online classes and online Practical session delivery.
10. Approval of Research Activities: Publications, Patents and Consultancy .
11. Approval of bi-annual progress presentations of research scholars of 2015-16 to 2020-21 batches.
12. Approval of measures taken to enhance the academic performance of slow and average learners.
13. Approval of measures taken to encourage research culture and startup culture among students.
14. Approval of measures taken to enhance placement activities for final year students.
15. Approval of online IA1, IA2, SEE question paper and Examination pattern for 2020-21 and 2021-22.
16. Approval of UG/PG project progress presentations and evaluations through online.
17. Approval of change in time table and number of hours for effective delivery through online.
18. Approval of other academic activities: FDPs, SDPs, Skill development Programmes, Conferences, Seminars, Expert talks, Industrial visits, Project exhibitions, Technical Club activities, outreach activities ,NSS and NCC.
19. Any other matter with the permission of the Chair.

Agenda Resolutions

At the outset, Dr. R. C. Biradar, the Chairperson of the BoS in Electronics & Communication Engineering, greeted all the members present and introduced all the panel members, The meeting was Scheduled through MS teams(online). Chairperson explained the purpose of the meeting and the agenda in brief. Then the agenda was taken up for discussion.

The Chairperson explained briefly about the establishment of REVA University and the Programmes being introduced under REVA University. He appraised the new credit pattern proposed for 2020-24 batch of UG and 2020-22 batch of PG. Also the benchmarking process taken up by the ECE team in designing each course.

Agenda -1:

Approval of Scheme of Instructions of 2020-24 and 3rd and 4th Semester syllabus of 2020-24 Batch of B. Tech. Electronics & Communication Engineering (ECE) and Electronics & Computer Engineering (ECM) 2020-24 Batch. The syllabus of courses is designed based on the bench marking process undertaken by REVA University in the last semester.

The Chairperson explained the proposed Scheme of Instructions and Syllabus for ECE 2020-24 Batch. The detailed syllabus of 3rd and 4th Semester B.Tech ECE was presented by Dr. Bharathi S. H. Professor, School of ECE.
The detailed syllabus of 3rd and 4th Semester B.Tech ECM was presented by Dr. Manjunath Kounte, HOD ECM.
The BoS members discussed the agenda in detail and suggested to tune the outcomes of all the courses as per blooms taxonomy as measurable outcomes.

Resolution:
The Board considered the proposal and unanimously resolved to recommend Scheme of Instructions and Syllabus for 3rd & 4th Semester B. Tech ECE 2020-24 Batch as in **Annexure I (**3rd & 4th Semester scheme of instructions and syllabus).

The Board considered the proposal and unanimously resolved to recommend Scheme of Instructions and Syllabus for 3rd & 4th Semester B. Tech ECM 2020-24 Batch as in **Annexure 2 (**3rd & 4th Semester scheme of instructions and syllabus).

Agenda -2:

Approval of scheme of instructions for B Tech in Robotics and Automation for 2021-25 batch.

The detailed scheme of instructions for B Tech in Robotics and Automation for 2021-25 batch was presented by Dr. K. M .Sudarshan, Asst. Director, Associate Professor, School of ECE.

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure III** (scheme of instructions for B Tech in Robotics and Automation for 2021-25 batch).

Agenda -3:

Approval of Scheme of Instructions and Syllabus for 7th & 8th Semester B. Tech. ECE 2018-22 Batch.

The detailed Scheme of Instructions and Syllabus for 7th & 8th Semester B. Tech. ECE 2018-22 Batch was presented by Dr. Bharathi S. H. Professor , School of ECE.

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure IV(**Scheme of Instructions and Syllabus for 7th & 8th Semester B. Tech. ECE 2018-22 Batch.)

Agenda -4:

Review/ Ratification of Syllabus for 5th & 6th Semester B. Tech. ECM 2019-23 Batch.

The detailed Scheme of Instructions and Syllabus for 5th & 6th Semester B. Tech. ECM 2019-23 Batch was presented by Dr. Manjunath Kounte, HOD ECM.

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure V(**5th & 6th Semester B. Tech. ECM 2019-23 Batch).

Agenda -5:

Approval of Scheme of Instructions and Syllabus of M. Tech. VLSI & ES (PT) 2021-23

The detailed **Scheme of Instructions and Syllabus of M. Tech. VLSI & ES (PT) 2021-23** Batch was presented by Dr. Prashanth Joshi, Associate professor, School of ECE.

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure VI (Scheme of Instructions and Syllabus of M. Tech. VLSI & ES (PT) 2021-23)**

Agenda -6:

Approval of minors and Honors for 2020-24 batch.

The details of minors and Honors for 2020-24 batch was presented by Chairperson Dr. R. C. Biradar, Director , School of ECE.

Resolution:
The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure VII(**details of minors and Honors for 2020-24 batch)

Agenda -7:

Approval of Scheme of Instructions and Syllabus of Post Graduate Certificate Programme in Internet of Things.

The detailed Scheme of Instructions and Syllabus of Post Graduate Certificate Programme in Internet of Things for **2021-22 was presented by** Batch Dr. Bharathi S. H. Professor , School of ECE.

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure VIII (**Scheme of Instructions and Syllabus of Post Graduate Certificate Programme in Internet of Things).

Agenda -8:

BoS Chair person is authorized to nominate the Panel of Board of Examiners (BoE) – Internal and external.

The Chairperson requested the Board Members to prepare the Panel of Examiners for UG and PG Courses.

Resolution

The Board prepared the panel of Examiners (internal and external) for UG & PG Courses and resolved to recommend the said panel to the University. The Board also decided to send the panel of examiners to the Registrar (Evaluation) directly as in **Annexure IX(**Panel of Board of Examiners (BoE) – Internal and external).

Agenda -9:

Approval of Academic Calendar, Lesson plan format, Scheduling of online classes and online Practical session delivery.

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure X**

Agenda -10

Approval of Research Activities: Publications, Patents and Consultancy

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure XI .**

Agenda -11

Approval of bi-annual progress presentations of research scholars of 2015-16 to 2020-21 batches.

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure XII .**

Agenda -12

Approval of measures taken to enhance the academic performance of slow and average learners.

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure XIII.**

Agenda -13

Approval of measures taken to encourage research culture and startup culture among students

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure XIV.**

Agenda -14

Approval of measures taken to enhance placement activities for final year students.

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure XV.**

Agenda -15

Approval of online IA1, IA2, SEE question paper and Examination pattern for 2020-21 and 2021-22

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure XVI.**

Agenda -16

Approval of UG/PG project progress presentations and evaluations through online

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure XVII.**

Agenda -17

Approval of change in time table and number of hours for effective delivery through online.

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure XVIII.**

Agenda -18

Approval of other academic activities: FDPs, SDPs, Skill development Programmes, Conferences, Seminars, Expert talks, Industrial visits, Project exhibitions, Technical Club activities, outreach activities ,NSS and NCC.

Resolution:

The Board considered the proposal and unanimously resolved to recommend the same as in **Annexure XIX.**

Agenda 19: Any other points

As there are no other points to be discussed, Chairperson thanked all the esteemed BoS members for their active participation and contribution and concluded the meeting.

Dr. R. C. Biradar
BoS Chairman, School of ECE

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

Agenda-1: Approval of Scheme of Instructions from 3rd to 8th semester and syllabus of 3rd and 4th Semester of B. Tech Mechanical Engineering 2020-24 Batch

Minutes of the Meeting

Sl. No	Name of the BOS member	Comments on Scheme and Content
1	**Dr. Mallikarjun Reddy**	1. Suggested to recheck the title 3rd sem Mechanics of solids as Mechanics of Materials or Strength of materials 2. Update the text books and reference books with new edition 3. Clubbing of 2 courses in to one course is accepted 4. Change the title of 4th sem Machining Science as Machining Process 5. Suggested to introduce balancing of reciprocating masses in Kinematics and Dynamics of Machines course of 4th sem 6. No issues on remaining courses in 3rd and 4th sem
2	**Dr. Ramesh M R**	1. Suggested to recheck the title 3rd sem Mechanics of solids as Mechanics of Deformable Bodies 2. The content of 4th Sem Material Science syllabus is more with respect to 3 credits, hence simplify the syllabus by removing the Engineering Materials topic. 3. In 5th sem instead of IC Engines make Automobile Engineering as a HC by adding hybrid vehicle and Electric vehicles topic 4. Change the title of 4th sem Machining Science as Machining Process 5. Club shaping and planning as a one topic 6. No issues on remaining courses in 3rd and 4th sem Mechanical Engineering
3	**Dr. Vidyasagar H N**	1. Recheck the title 3rd sem Mechanics of solids as Mechanics of materials or Strength of Materials 2. Add research methodology component in technical communication 3. No issue on last topic of Material Science course 4. Appreciate about introduction of MATLAB as separate lab in 4th Sem and suggested to Include 2 to 3 MATLAB programs in all the semester 5. No issues on other courses
4	**Dr. Sudheer Reddy J**	1. Use of CATIA tool in 4th sem Machine Drawing is more useful than other software's. Happy about school is planned to use same tool 2. Suggested to refer National Institute of Design for framing the content 6th sem Industrial Product Design Course 3. Recheck the title of the IC engine course in 5th sem and select suitable title for the course 4. Suggested to include sensors in Mechanical Measurement and metrology course in 4th sem. 5. Recheck the governor syllabus and suggested to introduce one governor 6. No issues on other courses

5	**Mr. S Hareesha**	1. Suggested to introduce materials structure study in the materials lab 2. Smart structure is present demand in aerospace , suggested to include in the curriculum 3. Include Model based Drawings(MBD) in machine Drawing 4. Other courses are as per the requirement of mechanical engineering
6	**Dr. Mahesh A**	1. The content of 4th Sem Material Science course is more, revision is required. Last topic in unit 4 may be removed 2. Change the title of 4th sem Machining Science as Manufacturing Science or any other suitable title 3. Rename the heading unconventional machining as non-conventional machining in 4th sem Machining Science 4. Suggested to add non-contact type measurement techniques and industry measuring instruments in 4th sem Mechanical Measurements and Metrology 5. Add topic like patent, copy rights while framing technical documentation course. 6 No issues on other courses
7	**Dr. A R K Swamy**	1. Suggested to recheck the title 3rd sem Mechanics of solids as Mechanics of Materials or Strength of materials 2. Introduce simple problems on gear and gear trains 3. Clubbing of 2 courses in to one course is accepted 4. All other courses content and scheme is accepted
8	**Mr. Raghavendra A S**	1. Testing of welding joint is major industry concern, hence Root test and Ultimate test for welded joints to be included in lab component of 3rd sem Mechanics of Solids course 2. Recommended to include RFID measuring technique in 4th sem Mechanical Measurements and Metrology 3. Governors are having limited applications at present, hence speed synchronizer can be adopted in 4th sem Kinematics and Dynamics course 4. More focus on Fits and Tolerance 5. All other courses content and schemes are acceptable
9	**Mr. Sendil Kumar**	1. Suggested to introduce Smart sensors in 4th sem Mechanical Measurements and Metrology 2. All other courses content of 3rd and 4th sem and schemes of 1st to 8th sem are acceptable
	Mr. Vidysagar R	1. Material Science syllabus is heavy, needs revision 2. Introducing MATLAB will be useful to students for career perspective

Note: Scheme & Syllabus revised considering all the suggestions of the BOS Members.

B. Tech in Mechanical Engineering
Scheme of Instructions 2020-24

SEMESTER-1 (Cycle-1)

Sl. No	Course Code	Title of the Course	HC/FC/SC/OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours / Week
					L	T	P	Total	
1	B20AS0103	Differential Equations and Linear Algebra	FC	PUC/ Equivalent	3	0	0	3	3
2	B20AS0107	Physics for Engineers	FC	PUC/ Equivalent	3	0	1	4	5
3	B20CS0101	Introduction to Data Science	HC	PUC/ Equivalent	2	0	1	3	4
4	B20ER0101	Introduction to Engineering Mechanics	HC	PUC/ Equivalent	3	0	0	3	3
	Practical /Term Work / Practice Sessions/Online /MOOC								
5	B20ME0104	Entrepreneurship	HC	PUC/ Equivalent	1	0	0	1	1
6	B20EC0101	IoT and Applications	HC	PUC/ Equivalent	1	0	1	2	3
7	B20ME0101	Computer Aided Engineering Drawing	HC	PUC/ Equivalent	2	0	1	3	4
				TOTAL	**4**	**0**	**2**	**6**	**23**
				TOTAL SEMESTER CREDITS				19	
				TOTAL CUMULATIVE CREDITS				19	
				TOTAL CONTACT HOURS				23	

SEMESTER-2 (Cycle-2)

Sl. No	Course Code	Title of the Course	HC/FC/SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20AS0205	Vector Calculus and Partial Differential Equations	FC	B20AS0103	3	1	0	4	4
2	B20AS0201	Applied Chemistry	FC	-	3	0	0	3	3
3	B20CI0101	Introduction to Python programming	HC	-	2	0	1	3	4
4	B20EE0101	Basic Electrical and Electronics Engineering	HC	-	3	0	1	4	5
5	B20ER0201	Elements of Mechanical Engineering	HC	-	3	0	1	4	5
	Practical /Term Work / Practice Sessions/Online /MOOC								
6	B20AS0109	Biology for Engineers	FC	-	1	0	0	1	1
7	B20ME0102	Design Thinking	HC	-	1	0	1	2	3
				TOTAL	**2**	**0**	**1**	**3**	**25**
				TOTAL SEMESTER CREDITS				21	
				TOTAL CUMULATIVE CREDITS				40	
				TOTAL CONTACT HOURS				25	

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

SEMESTER-3 (Cycle-1)

Sl. No	Course Code	Title of the Course	HC/FC/ SC/OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20AS0304	Laplace Transforms and Fourier Series	HC	B20AS0205	3	0	0	3	3
2	B20ER0301	Engineering Thermodynamics	HC		3	1	0	4	4
3	B20ER0302	Material Science	HC		3	0	0	3	4
4	B20ER0303	Manufacturing Science	HC		3	0	1	4	5
5	B20ER0304	Mechanics of Materials	HC		3	0	1	4	5
Practical /Term Work / Practice Sessions/Online /MOOC									
6	B20AH0301	Communication Skill	FC		2	0	0	2	2
7	B20LS0301	Indian constitution and Professional Ethics	FC		2	0	0	2	2
8	B20AHM401	Universal Human Values	FC		0	0	0	0	2
				TOTAL	**19**	**1**	**2**	**22**	**27**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				62	
				TOTAL CONTACT HOURS				27	

SEMESTER-4 (Cycle-2)

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20AS0403	Probability and Sampling Theory	HC	B20AS0304	3	0	0	3	3
2	B20ER0401	Mechanical Measurements and Metrology	HC		3	0	1	4	5
3	B20ER0402	Machining Processes	HC		3	0	1	4	5
4	B20ER0403	Kinematics and Dynamics of Machines	HC		3	0	1	4	5
Practical /Term Work / Practice Sessions/Online /MOOC									
5	B20ER0404	Computer Aided Machine Drawing	HC	B20ME0101	1	0	2	3	5
6	B20MG0301	Management Science	HC		2	0	0	2	2
7	B20AS0303	Environmental Science	FC		2	0	0	2	2
8	B20ER0405	MATLAB for Mechanical Engineers	HC		0	0	1	1	2
9	B20AHM301	Advanced Kannada	FC		0	0	0	0	2
	B20AHM302	Basics of Kannada	FC		0	0	0	0	2
				TOTAL	**17**	**0**	**5**	**22**	**29**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				84	
				TOTAL CONTACT HOURS				29	

SEMESTER-5

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20ER0501	Design of Machine Elements	HC		3	1	0	4	4
2	B20ER0502	Fluid Mechanics and Machines	HC		3	0	1	4	5
3	B20ER0503	Thermal Engineering Systems	HC		3	0	1	4	5
Professional Elective-1									
4	B20ERS511	Smart Materials	SC	B20ER0302	3	0	0	3	3
	B20ERS512	Experimental Stress Analysis	SC		3	0	0	3	3
	B20ERS513	Energy Technology	SC		3	0	0	3	3
	B20ERS514	Automotive Engineering	SC		3	0	0	3	3
	B20ERS515	Statistical Quality Control	SC		3	0	0	3	3
Open Elective-1 for other school students									
5	B20MEO501	**Smart Materials**	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
6	B20ER0504	Flow Analysis Using Ansys Fluent	HC		1	0	1	2	3
7	B20PA0501	Indian Tradition and Culture	FC		2	0	0	2	2
				TOTAL	**18**	**1**	**3**	**22**	**25**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				106	
				TOTAL CONTACT HOURS				25	

SEMESTER-6

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20ER0601	Heat Transfer	HC	B20ER0301	3	0	1	4	5
2	B20ER0602	Finite Element Methods	HC	B20ER0304	3	0	1	4	5
Professional Elective-2									
3	B20ERS611	Additive Manufacturing and 3D Printing	SC		3	0	0	3	3
	B20ERS612	Design for Manufacture, Assembly and Environment	SC		3	0	0	3	3
	B20ERS613	Turbomachines	SC	B20ER0502	3	0	0	3	3
	B20ERS614	Electric and Hybrid Vehicles	SC		3	0	0	3	3
	B20ERS615	Production and Operations Management	SC	B20ERS515	3	0	0	3	3
Professional Elective-3									
4	B20ERS621	Automation in Manufacturing	SC		3	0	0	3	3
	B20ERS622	Robotic Systems-Kinematics	SC		3	0	0	3	3
	B20ERS623	Refrigeration and Air-Conditioning	SC		3	0	0	3	3
	B20ERS624	Aircraft Fundamentals	SC		3	0	0	3	3
	B20ERS625	Industrial Engineering	SC		3	0	0	3	3
Open Elective-2 for other school students									
5	B20MEO601	Mechatronics	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
6	B20ER0603	Research Based Mini Project	HC		0	0	2	2	6
7	B20ER0604	Technical Documentation	FC		1	0	0	1	1
8	B20ER0605	Industrial Product Design	HC		2	0	0	2	2
				TOTAL	**18**	**0**	**4**	**22**	**28**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				128	
				TOTAL CONTACT HOURS				28	

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

SEMESTER-7

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20ER0701	Vibrations and Noise Engineering	HC		2	0	1	3	4
2	B20ER0702	Computer Integrated Manufacturing	HC		2	0	1	3	4
3	B20ER0703	Mechatronics and Control Systems	HC		3	0	0	3	3
4	B20ER0704	Engineering Economics and Financial Management	HC		3	0	0	3	3
Professional Elective-4									
5	B20ERS711	IoT in Manufacturing	SC		3	0	0	3	3
	B20ERS712	Robotic Systems-Dynamics and Control	SC	B20ERS622	3	0	0	3	3
	B20ERS713	Computational Fluid Dynamics	SC		3	0	0	3	3
	B20ERS714	MEMS	SC		3	0	0	3	3
	B20ERS715	Total Quality Management and Six Sigma	SC	B20ERS615	3	0	0	3	3
Professional Elective-5									
6	B20ERS721	Hydraulics and Pneumatics	SC		3	0	0	3	3
	B20ERS722	Tribology	SC		3	0	0	3	3
	B20ERS723	Solar Energy –Thermal and Photovoltaic	SC		3	0	0	3	3
	B20ERS724	Autonomous Vehicles	SC		3	0	0	3	3
	B20ERS725	Operation Research	SC		3	0	0	3	3
Open Elective-3 for other school students									
7	B20MEO701	Robotics Engineering and Applications	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
8	B20ER0705	Project Phase-1	HC		0	0	1	1	3
				TOTAL	**19**	**0**	**3**	**22**	**26**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				150	
				TOTAL CONTACT HOURS				26	

SEMESTER-8

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
Open Elective-4 for other school students									
1	B20MEO801	Engineering Economics and Financial Management	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
2	B20ER0801	Major Project	HC		0	0	7	7	21
				TOTAL	**3**	**0**	**7**	**10**	**24**
								TOTAL SEMESTER CREDITS	10
								TOTAL CUMULATIVE CREDITS	160
								TOTAL CONTACT HOURS	24

Agenda-2. Approval of Scheme of Instructions from 3rd to 8th semester and syllabus of 3rd and 4th Semester of B.Tech Mechatronics Engineering 2020-24 Batch

Minutes of Meeting

1. The courses like mathematics, mechanics of solids, mechanical measurements, kinematics and dynamics of machines, the content is same as mechanical engineering. Hence same suggestions will be implemented for these courses.
2. Dr. A R K Swamy suggested to teach only basic concepts in Thermal Engineering.
3. Dr. Mallikarjuna Reddy highlighted importance of software tools like Simulink and other mechanical and electronics/electrical software's, are recommended to implement various semesters.
4. Dr. R C Biradar suggested to include Ardino and Rasberry microcontrollers in Unit 4 of 4th sem Microcontrollers and Applications course
5. Mr. Chandru Nadig suggested to introduce Smart passive Sensors(SPS) in Microcontrollers course
6. No issues in content of other courses such as Signals and Networks, Analog and Digital Circuits.
7. All members are recommended that the Schemes of 5th to 8th semesters are acceptable

B. Tech in Mechatronics Engineering

Scheme of Instructions 2020-24

SEMESTER-1 (Cycle-1)

Sl. No	Course Code	Title of the Course	HC/FC/SC/OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours / Week
					L	T	P	Total	
1	B20AS0103	Differential Equations and Linear Algebra	FC	PUC/ Equivalent	3	0	0	3	3
2	B20AS0107	Physics for Engineers	FC	PUC/ Equivalent	3	0	1	4	5
3	B20CS0101	Introduction to Data Science	HC	PUC/ Equivalent	2	0	1	3	4
4	B20ER0101	Introduction to Engineering Mechanics	HC	PUC/ Equivalent	3	0	0	3	3
	Practical /Term Work / Practice Sessions/Online /MOOC								
5	B20ME0104	Entrepreneurship	HC	PUC/ Equivalent	1	0	0	1	1
6	B20EC0101	IoT and Applications	HC	PUC/ Equivalent	1	0	1	2	3
7	B20ME0101	Computer Aided Engineering Drawing	HC	PUC/ Equivalent	2	0	1	3	4
				TOTAL	4	0	2	6	23
				TOTAL SEMESTER CREDITS				19	
				TOTAL CUMULATIVE CREDITS				19	
				TOTAL CONTACT HOURS				23	

SEMESTER-2 (Cycle-2)

Sl. No	Course Code	Title of the Course	HC/FC/SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20AS0205	Vector Calculus and Partial Differential Equations	FC	B20AS0103	3	1	0	4	4
2	B20AS0201	Applied Chemistry	FC	-	3	0	0	3	3
3	B20CI0101	Introduction to Python programming	HC	-	2	0	1	3	4
4	B20EE0101	Basic Electrical and Electronics Engineering	HC	-	3	0	1	4	5
5	B20ER0201	Elements of Mechanical Engineering	HC	-	3	0	1	4	5
	Practical /Term Work / Practice Sessions/Online /MOOC								
6	B20AS0109	Biology for Engineers	FC	-	1	0	0	1	1
7	B20ME0102	Design Thinking	HC	-	1	0	1	2	3
				TOTAL	**2**	**0**	**1**	**3**	**25**
				TOTAL SEMESTER CREDITS				21	
				TOTAL CUMULATIVE CREDITS				40	
				TOTAL CONTACT HOURS				25	

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

SEMESTER-3 (Cycle-1)

Sl. No	Course Code	Title of the Course	HC/FC/ SC/OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20AS0304	Laplace Transforms and Fourier Series	HC	B20AS0205	3	0	0	3	3
2	B20ES0301	Thermal Engineering	HC		3	1	0	4	4
3	B20ES0302	Signals and Networks	HC		3	0	0	3	3
4	B20ES0303	Analog and Digital Circuits	HC		3	0	1	4	5
5	B20ER0304	Mechanics of Materials	HC		3	0	1	4	5
Practical /Term Work / Practice Sessions/Online /MOOC									
6	B20AH0301	Communication Skill	FC		2	0	0	2	2
7	B20LS0301	Indian constitution and Professional Ethics	FC		2	0	0	2	2
8	B20AHM401	Universal Human Values	FC		0	0	0	0	2
				TOTAL	19	1	2	**22**	**27**
					TOTAL SEMESTER CREDITS			**22**	
					TOTAL CUMULATIVE CREDITS			**62**	
					TOTAL CONTACT HOURS			**27**	

SEMESTER-4 (Cycle-2)

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20AS0403	Probability and Sampling Theory	HC	B20AS0304	3	0	0	3	3
2	B20ES0401	Mechanical Measurements and Instrumentation	HC		3	0	1	4	5
3	B20ER0403	Kinematics and Dynamics of Machines	HC		3	0	1	4	5
4	B20ES0402	Microcontrollers and Applications	HC		3	0	1	4	5
5	B20ES0403	Sensors and Actuators	HC		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
6	B20MG0301	Management Science	HC		2	0	0	2	2
7	B20AS0303	Environmental Science	FC		2	0	0	2	2
8	B20AHM301	Advanced Kannada	FC		0	0	0	0	2
	B20AHM302	Basics of Kannada	FC		0	0	0	0	2
				TOTAL	**19**	**0**	**3**	**22**	**27**
					TOTAL SEMESTER CREDITS			22	
					TOTAL CUMULATIVE CREDITS			84	
					TOTAL CONTACT HOURS			27	

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

SEMESTER-5

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20ES0501	Electrical Machines and Drives	HC		3	0	0	3	3
2	B20ER0302	Material Science	HC		3	0	0	4	3
3	B20ES0502	Control System	HC		3	0	1	3	5
4	B20ES0503	Robotics	HC		3	0	1	4	5
Professional Elective-1									
4	B20ESS511	CNC Machines	SC		3	0	0	3	3
	B20ESS512	Conventional and Electrical Vehicles	SC		3	0	0	3	3
	B20ESS513	Product Design and Development	SC		3	0	0	3	3
	B20ESS514	Data Structures	SC		2	0	1	3	4
Open Elective-1 for other school students									
5	B20MEO501	Smart Materials	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
7	B20PA0501	Indian Tradition and Culture	FC		2	0	0	2	2
				TOTAL	**20**	**0**	**2**	**22**	**25**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				106	
				TOTAL CONTACT HOURS				25	

REVA UNIVERSITY ★ SCHOOL OF MECHANICAL ENGG. ★

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

SEMESTER-6

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20ES0601	Automation in Production	HC		3	0	1	4	5
2	B20ES0602	Introduction to Finite Element Methods	HC	B20ER0304	3	0	1	4	5
Professional Elective-2									
3	B20ESS611	Robotics Dynamics and Control	SC		3	0	0	3	3
	B20ESS612	Hybrid Vehicles	SC		3	0	0	3	3
	B20ESS613	Pilotless Aircrafts and Drones	SC		3	0	0	3	3
	B20ESS614	Computer Vision	SC		3	0	0	3	3
Professional Elective-3									
4	B20ESS621	Intelligent Vehicle Technology	SC		3	0	0	3	3
	B20ESS622	Aircraft Flight and Control System	SC		3	0	0	3	3
	B20ESS623	Operation Management	SC		3	0	0	3	3
	B20ESS624	Machine Learning with Python	SC		2	0	1	3	4
Open Elective-2 for other school students									
5	B20MEO601	Mechatronics	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
6	B20ES0603	Research Based Mini Project	HC		0	0	2	2	6
7	B20ER0604	Technical Documentation	FC		1	0	0	1	1
8	B20ER0605	Industrial Product Design	HC		2	0	0	2	2
				TOTAL	**18**	**0**	**4**	**22**	**28**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				128	
				TOTAL CONTACT HOURS				28	

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

SEMESTER-7

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20ER0501	Design of Machine Elements	HC		3	1	0	4	4
2	B20ES0701	Introduction to Hydraulics and Pneumatics	HC		3	0	1	4	5
3	B20ES0702	Digital Signal Processing	HC		3	0	1	4	5
Professional Elective-4									
4	B20ESS711	Additive Manufacturing	SC		3	0	0	3	3
	B20ESS712	Robotics Engineering and Applications	SC		3	0	0	3	3
	B20ESS713	Smart Materials	SC		3	0	0	3	3
	B20ESS714	Engineering Economics and Financial Management	SC		3	0	0	3	3
Professional Elective-5									
5	B20ESS721	IoT and Cyber Physical Systems	SC		3	0	0	3	3
	B20ESS722	Virtual and Augmented Reality	SC		3	0	0	3	3
	B20ESS723	Safety and Security of Automotive Systems	SC		3	0	0	3	3
	B20ESS724	Artificial Intelligence	SC		3	0	0	3	3
Open Elective-3 for other school students									
6	B20MEO701	Robotics Engineering and Applications	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
7	B20ES0703	Project Phase-1	HC		0	0	1	1	3
				TOTAL	**18**	**1**	**3**	**22**	**26**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				150	
				TOTAL CONTACT HOURS				26	

SEMESTER-8

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
Open Elective-4 for other school students									
1	B20MEO801	Engineering Economics and Financial Management	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
2	B20ES0801	Major Project	HC		0	0	7	7	21
				TOTAL	3	0	7	10	24
				TOTAL SEMESTER CREDITS				10	
				TOTAL CUMULATIVE CREDITS				160	
				TOTAL CONTACT HOURS				24	

Agenda-3: Review/ Ratification of Syllabus for 7th & 8th Semester B. Tech. Mechanical Engineering 2018-22 and 2019-23 Batch

1. It is bring to the notice of the BOS that up to 6th semester scheme and content has been revised in 7th and 8th BOS. At present 7th and 8th sem scheme and content with minor modification is put into further approval.
2. Mr. Raghavendra suggested to introduce Painting and Surface Finishing course as a soft core.
3. Mr. Aneesh Padmanabha highlighted the practical exposure of FEM.
4. Director bring to the kind notice that the fem practical component is introduced as Structural Analysis Lab in 7th sem.
5. Mr. Aneesh rise the view on Data Hand Book for Machine Design and Heat Transfer course must be common edition to be mentioned
6. The following changes in the curriculum is accepted by all the members

VII SEMESTER

Sl. No	Course Code	Title of the Course	Type of Course	Credit Pattern & Credit Value				Contact Hours	Teaching School
				L	T	P	Total		
1	B18ME7010	Finite Element Methods	HC	2	1	0	3	4	ME
2	B18ME7020	Control Engineering*	HC	3	0	1	4	5	ME
3	B18ME7030	Engineering Economics and Financial Management	HC	4	0	0	4	4	ME
4	**Soft Core – 7**								
	B18ME7041	Cryogenic Engineering	SC	3	0	0	3	3	ME
	B18ME7042	Tribology and Bearing Design		3	0	0	3	3	ME
	B18ME7043	Automation in Manufacturing		3	0	0	3	3	ME
	B18ME7044	Non Destructive Testing		3	0	0	3	3	ME
	B18ME7045	Safety Engineering		3	0	0	3	3	ME
5	**Soft Core – 8**								
	B18ME7051	Computational Fluid Dynamics	SC	2	1	0	3	4	ME
	B18ME7052	Mechanical Vibrations		2	1	0	3	4	ME
	B18ME7053	Operation Research		2	1	0	3	4	ME
	B18ME7054	Gas Turbines and Jet Propulsion		2	1	0	3	4	ME
	B18ME7055	Data Analytics using R-Programming		2	0	1	3	4	C&IT
6	**Open Elective**		OE	4	0	0	4	4	--

7	B18ME7070	Structural Analysis Lab	HC	0	0	2	2	3	ME
8	B18ME7080	Product Design and Concept Lab	HC	0	0	2	2	3	ME
TOTAL CREDITS & CONTACT HOURS							**25**	**30**	

Note: 1. Control Engineering Course is integrated with MAT Lab for practice session.

VIII SEMESTER

Sl. No	Course Code	Title of the Course	Type of Course	Credit Pattern & Credit Value				Contact Hours	Teaching School
				L	T	P	Total		
1	**Soft Core – 9**								
	B18ME8011	Electric Vehicles and Hybrid Vehicles	SC	3	0	0	3	3	ME
	B18ME8012	Advanced Foundry Technology		3	0	0	3	3	ME
	B18ME8013	Additive Manufacturing		3	0	0	3	3	ME
	B18ME8014	New Venture Planning and Management		3	0	0	3	3	ME
	B18ME8015	Project Management		3	0	0	3	3	ME
2	**Soft Core – 10**								
	B18ME8021	Energy Audit and Management	SC	3	0	0	3	3	ME
	B18ME8022	Advanced Machine Design		3	0	0	3	3	ME
	B18ME8023	MEMS		3	0	0	3	3	ME
	B18ME8024	Total Quality Management		3	0	0	3	3	ME
	B18ME8025	Internship		0	0	3	3	21days	--
3	B18ME8030	Project Work	HC	0	0	8	8	----	ME
4	B18ME8040	MOOC/Swayam/NPTEL *	RULO	3	0	0	3	----	---
TOTAL CREDITS & CONTACT HOURS							**17**	**06**	
TOTAL CREDITS OF I SEMESTER TO VIII SEMESTER							**192**		

1. **Student should do 21 days one internship or 15 days each 2 internship or they have to study the soft core -10**
2. **Each student has to undergo Certification Programme through MOOC or NPTEL etc.**

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

Minor changes in 2018 scheme 7th and 8th Semester Mechanical courses

Sl. No	Course	Changes
1	Scheme 7th and 8th sem	No
2	Computational Fluid Dynamics-7th sem, Soft Core	Unit-1 Momentum and energy in differential form& **vector form (No derivation)**
3	Gas Turbines and Jet Propulsion-7th sem, Soft Core	**Unit-2**: Numerical on pressure losses **(to be added),** Critical Design parameters of combustion chamber Materials for combustion chamber**(To be removed)** **Unit: 4** Numerical on specific thrust. **(to be added)**
4	Operation Research - 7th sem, Soft Core	**Unit-1:** To remove concept of Duality **Unit-2:** Transportation model - Determination of IBFS using different methods - Different methods to VAM Technique. (To be introduced) **Unit-3:** To remove processing of n jobs through m machines.
5	Finite Element Methods -7th Sem Hard Core	**Unit 1:** Variation approach-Rayleigh Ritz method, Weighted Residual methods, Galerkin method, simple problems **(To be removed)** Mesh Quality Parameters – Skewness, Aspect Ratio, Warpage Angle, Skewness **(To be Added)**
6	Mechanical Vibrations – 7th Sem – Soft Core	**Unit- 3:** Instruments – Vibrometer, Accelerometer, Frequency measuring instruments and Problems **(To be removed)** Vibration Measurement Scheme, Piezoelectric based Accelerometers, Stroboscope **(To be added)**
7	Electric Vehicles and Hybrid Vehicles--8th sem, Soft Core	**Change in CO3:** Explain design principles used and select proper energy storage systems for electric vehicle applications. **UNIT-II:** Architecture of Hybrid & Electric vehicle & Drivetrains**(To be changed as)** **Architecture:** The drive train configuration, Various types of Vehicle Power plants, need of gearbox in a vehicle. Basic architecture of Electric drive trains **(To be added)** power flow control in hybrid drive-train topologies, fuel efficiency analysis **(To be removed)** **UNIT-III:** Design of Hybrid and Electric vehicles & Energy Storage. **(Sub Title To be changed)** **Design of Hybrid and Electric vehicles:** Design Principles of HEVs I, HEV II, Drive cycle and its detailed analysis, sizing of electric Machine for EVs and HEVs **(to be added)** **Unit-4:** classification of different energy management

		strategies, comparison of different energy management strategies **(To be removed)**
8	**Energy Audit and Management -8th Sem, Soft Core.**	**No change in the content, only change in CO1 and CO3** 1 Explain various energy resources and its demand 2 Apply the energy audit techniques to find energy utilization
9	**Additive Manufacturing- 8th Sem, Soft Core**	**Updated Syllabus of Unit-3:** Introduction, types, 3D printing to 5D printing - principle of operation. Indirect and Direct rapid tooling - Aluminium filled epoxy tooling, Spray metal tooling, 3D Keltool, DMILS and Quick cast process.

Agenda-4. Review/ Ratification of Syllabus for 5th & 6th Semester B. Tech. Mechatronics Engineering 2019-23 Batch

1. It is bring to the notice of the BOS that up to 4th semester scheme and content has been revised in 7th and 8th BOS. At present 5th and 6th sem scheme and content with minor modification is put into further approval.
2. The following changes in the scheme and curriculum is accepted by all the members

V SEMESTER

Sl. No	Course Code	Title of the Course	Type of Course	Credit Pattern & Credit Value				Contact Hours	Teaching School
				L	T	P	Total		
1	B19MT5010	CNC Technology	HC	3	0	0	3	3	ME
2	B19MT5020	Communication Systems	HC	4	0	0	4	4	ECE
3	B19MT5030	Data Acquisition Systems	HC	4	0	0	4	4	ECE
4	B19MT5040	Robotics and Vision System	HC	4	0	4	4	4	ECE
5	Soft Core -1								
	B19MT5051	Automotive Engineering	SC	3	0	0	3	3	ME
	B19MT5052	Tribology and Bearing Design		3	0	0	3	3	ME
	B19MT5053	Theory of Metal Cutting and Machine Tools		2	0	1	3	4	ME
	B19MT5054	Material Science and Technology		2	0	1	3	4	ME
	B19MT5055	Data Structure		2	0	1	3	4	C&IT
6	Soft Core -2								
	B19MT5061	Elements of Avionics	SC	3	0	0	3	3	ECE
	B19MT5062	Python Programming		3	0	0	3	3	C&IT/ ECE
	B19MT5063	Data Communication Networking		3	0	0	3	3	ECE
	B19MT5064	Mobile Application Development		3	0	0	3	3	ECE
	B19MT5065	Sensors and Actuators		3	0	0	3	3	ECE/ME
7	B19MT5070	CNC Lab	HC	0	0	2	2	3	ME
8	B19MT5080	Data Acquisition System Lab	HC	0	0	2	2	3	ECE
9	B19MT5090	Placement Training-3	RULO	0	0	2	2	3	Placement

REVA UNIVERSITY SCHOOL OF MECHANICAL ENGG

TOTAL CREDITS & CONTACT HOURS	27	31	
TOTAL CREDITS OF I SEMESTER TO V SEMESTER	124		

VI SEMESTER

Sl. No	Course Code	Title of the Course	Type of Course	Credit Pattern & Credit Value				Contact Hours	Teaching School
				L	T	P	Total		
1	B19MT6010	Process Automation	HC	3	0	0	3	3	ME
2	B19MT6020	Design of Machine Elements	HC	4	0	0	4	4	ME
3	B19MT6030	Digital Signal Processing	HC	3	1	0	4	5	ECE
4	Soft Core -3								
	B19MT6041	Refrigeration and Air Conditioning	SC	3	0	0	3	3	ME
	B19MT6042	Composite Materials		3	0	0	3	3	ME
	B19MT6043	Rapid Prototyping		3	0	0	3	3	ME
	B19MT6044	Nonconventional Machining Processes		3	0	0	3	3	ME
	B19MT6045	Machine Learning Using Python Programming		2	0	1	3	4	C&IT
5	Soft Core -4								
	B19MT6051	Artificial Intelligence for Mechatronics Systems	SC	3	0	0	3	3	ECE
	B19MT6052	PLC and SCADA		3	0	0	3	3	ECE
	B19MT6053	Underwater Robotics		3	0	0	3	3	ECE
	B19MT6054	Wireless Sensor Networks		3	0	0	3	3	ECE
	B19MT6055	System Modelling and Simulation		3	0	0	3	3	ECE/ME
6	Soft Core -5								
	B19MT6061	Heat Transfer	SC	2	1	0	3	4	ME
	B19MT6062	Operation Research		2	1	0	3	4	ME
	B19MT6063	Finite Element Methods		2	0	1	3	4	ME
	B19MT6064	Theory of Machines		2	1	0	3	4	ME
	B19MT6065	Machine Tool Design		2	1	0	3	4	ME
7	B19MT6070	Automation Lab	HC	0	0	2	2	3	ME
8	B19MT6080	Digital Signal Processing Lab	HC	0	0	2	2	3	ECE
9	B19MT6090	Placement Training-4	RULO	0	0	2	2	3	Placement
TOTAL CREDITS & CONTACT HOURS							26	32	
TOTAL CREDITS OF I SEMESTER TO VI SEMESTER							150		

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

VII SEMESTER

Sl. No	Course Code	Title of the Course	Type of Course	Credit Pattern & Credit Value				Contact Hours	Teaching School
				L	T	P	Total		
1	B19MT7010	Engineering Economics and Financial Management	HC	2	1	0	3	4	ME
2	B19MT7020	Control Systems	HC	3	1	0	4	5	ME/ECE
3	B19MT7030	Embedded Systems	HC	4	0	0	4	4	ECE
4	Soft Core – 6								
	B19MT7041	MEMS	SC	3	0	0	3	3	ME
	B19MT7042	Product Design and Development		3	0	0	3	3	ME
	B19MT7043	Industrial Engineering		3	0	0	3	3	ME
	B19MT7044	Non Destructive Testing Methods		3	0	0	3	3	ME
	B19MT7045	Safety Engineering		3	0	0	3	3	ME
5	Soft Core – 7								
	B19MT7051	Biomedical Signal Processing	SC	2	1	0	3	4	ECE
	B19MT7052	Real Time Operating Systems		2	1	0	3	4	ECE
	B19MT7053	Autotronics		2	1	0	3	4	ECE
	B19MT7054	Nano Technology		2	1	0	3	4	ECE
	B19MT7055	IoT and Cyber Physical Systems		2	1	0	3	4	ECE
6	B19MT7060	Robotics and Vision System	OE	4	0	0	4	4	ECE
7	B19MT7070	Embedded System Lab	HC	0	0	2	2	3	ECE
8	B19MT7080	Communication Systems Lab	HC	0	0	2	2	3	ECE
			TOTAL CREDITS & CONTACT HOURS				25	30	
			TOTAL CREDITS OF I SEMESTER TO VII SEMESTER				175		

VIII SEMESTER

Sl. No	Course Code	Title of the Course	Type of Course	Credit Pattern & Credit Value				Contact Hours	Teaching School
				L	T	P	Total		
1	Soft Core – 8								
	B19MT8011	Industrial Robotics	SC	3	0	0	3	3	ME
	B19MT8012	Hybrid-Electric Vehicles		3	0	0	3	3	ME/EEE
	B19MT8013	Safety and Security of Automotive Systems		3	0	0	3	3	ME/ECE
	B19MT8014	Power Electronics		3	0	0	3	3	ECE
	B19MT8015	Project Management		3	0	0	3	3	ME
2	B19MT8030	Project Work	HC	0	0	12	12	----	ME/ECE
3	B19MT8040	MOOC/Swayam/NPTEL/ Internship *	SC	2	0	0	2	----	---
			TOTAL CREDITS & CONTACT HOURS				17	06	
			TOTAL CREDITS OF I SEMESTER TO VIII SEMESTER				192		

*Student should do 21 days one internship or 15 days each 2 internship or they have to undergo Certification Programme through MOOC or NPTEL.

Minor changes in 2019 scheme 5th and 6th Sem Mechatronics Courses

Sl. No	Subject	Changes
1	Robotics and Vision System-5th Sem, Hardcore course	**Unit-4:** Analog to digital signal conversion, quantization and encoding, Image processing and analysis, image data reduction, segmentation, feature extraction, object recognition,---------- to be removed
2	Automotive Engineering-5th Sem, Soft Core Course	**Unit-1:** Types of combustion chambers for S.I.Engine and C.I.Engines, methods of a Swirl generation, **(To be removed)** **Unit-III:** Advantages of Types of Electronic Ignition System, Firing Order, Importance of Ignition Timing and Ignition Advance. and comparisons. **(To be removed)** Automatic Transmission System **(To Be Added)** **UNIT-IV:** Torsion bar suspension systems, Types of brakes, mechanical compressed air, vacuum and hydraulic braking systems, construction and working of master and wheel cylinder, brake shoe arrangements, **(To be removed)**
2	Heat Transfer--6th Sem, Soft Core Course	**Credit is changed from 2-0-1 to 2-1-0** **Unit-I:** Fins-types of fins, Discussion on governing equations for different conditions of fins (no derivation), effectiveness & efficiency of fin, Numerical.**(To be removed)** Lumped system Analysis, Use of Heisler's charts for transient conduction in plane slab, long cylinder and sphere. Numerical examples.**(To be shifted from Unit-2)** **Unit-2 and Unit-3:** Applications of dimensional analysis for free convection and forced convection.**(To be removed)** **Unit 3:** Heat Exchangers: Classification, Overall heat transfer coefficient, fouling and fouling factors, LMTD (With Derivation), Discussion on effectiveness-NTU methods (Without Derivation) of analysis of heat exchangers, Numerical. **(To Be shifted from unit 4)** Radiation Heat transfer topic **(To be Removed)** **Unit-4: Phase change convective process and Thermal management system(to be renamed)**

Agenda-5: Review/ Ratification of Syllabus for 3rd & 4th Semester M. Tech-Machine Design 2020-22 Batch.

1. It is bring to the notice of the BOS that up to first year scheme and content has been revised in 8th BOS. At present 2nd year scheme and content with minor modification is put into further approval.
2. Dr. Sudheer Reddy recommended one MOOC course is enough to match time schedule with Swayam or NPTEL platform
3. Dr. Mahesh A stressed on PG internship to get employment opportunities in R&D institutions.
4. The BOS approved the scheme and content of the 2nd year Machine Design program

M. Tech. in Machine Design
Scheme of Instructions

I SEMESTER

Sl. No	Course Code	Title of the Course	HC/SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	M20AS0103	Computational Methods in Engineering	HC	B.Tech. in Mechanical and allied branches	2	0	1	3	4
2	M20TI0101	Advanced Mechanical Vibrations	HC	B.Tech. in Mechanical and allied branches	4	0	0	4	4
3	M20TI0102	Advanced Mechanics of Materials	HC	B.Tech. in Mechanical and allied branches	2	1	0	3	3
4	M20TI0103	Computer Aided Engineering	HC	B.Tech. in Mechanical and allied branches	2	0	1	3	4
5	M20TIS111	Design of Experiments	SC-1	B.Tech. in Mechanical and allied branches	3	0	1	4	5
	M20TIS112	Synthesis and Analysis of Mechanisms			3	0	1	4	5
TOTAL					**13**	**1**	**3**	**17**	**20**
Practical /Term Work / Practice Sessions/Online /MOOC									
6	M20TI0104	Design Thinking	HC	B.Tech. in Mechanical and allied branches	2	0	1	3	4
TOTAL					**2**	**0**	**1**	**3**	**4**
TOTAL SEMESTER CREDITS									**20**
TOTAL CUMULATIVE CREDITS									**20**
TOTAL CONTACT HOURS									**24**

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

II SEMESTER

Sl. No	Course Code	Title of the Course	HC/SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	M20TI0201	Advanced Engineering Materials	HC	-	2	0	1	3	4
2	M20TI0202	Advanced Finite Element Methods	HC	M20TI0101 M20AS0103	3	0	1	4	5
3	M20TI0203	Design for Manufacture, Assembly and Environment	HC	-	4	0	0	4	4
4	M20TI0204	Project Management	HC	-	2	0	1	3	4
5	M20TIS211	Mechatronics Product Design	SC-2	M20TI0101	2	0	1	3	4
	M20TIS212	Vehicle Dynamics							
6	M20TIS221	Additive Manufacturing	SC-3	-	3	0	0	3	3
	M20TIS222	Computational Fluid Dynamics							
	M20TIS223	Robotics and its Applications							
				TOTAL	**16**	**0**	**4**	**20**	**24**
				TOTAL SEMESTER CREDITS				**20**	
				TOTAL CUMULATIVE CREDITS				**40**	
				TOTAL CONTACT HOURS				**24**	

III SEMESTER

Sl. No	Course Code	Title of the Course	HC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
	Practical /Term Work / Practice Sessions/Online /MOOC								
1	M20TI0301	Industrial Internship	HC	-	0	0	8	8	16
2	M20TI0302	Project Dissertation Phase-I	HC	-	0	0	4	4	8
3	M20TIO301	MOOC/SWAYAM Online Course of Interdisciplinary Nature	OE	-	4	0	0	4	4
				TOTAL	**4**	**0**	**12**	**16**	**28**
				TOTAL SEMESTER CREDITS				**16**	
				TOTAL CUMULATIVE CREDITS				**56**	

* List of online courses will be provided to students depending on availability of courses during their 3rd semester.

Career Guidance Centre along with School is putting good efforts to ensure that all M.Tech. Students to undergo Paid Internships during their 3rd Sem that leads to Placements. In order to give more weightage to Internship, more credits being allotted.

IV SEMESTER

Sl. No	Course Code	Title of the Course	HC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
	Practical /Term Work / Practice Sessions/Online /MOOC								
1	M20TI0401	Master Thesis	HC	-	0	0	16	16	32
				TOTAL	0	0	16	16	32
					TOTAL SEMESTER CREDITS			16	
					TOTAL CUMULATIVE CREDITS			72	
					TOTAL CONTACT HOURS			32	

Agenda-6: Approval of Minors and Honors for B.Tech Programs 2020-21 admitted batch.

Minor and Honors Degree

Among several academic changes implemented by the REVA University from the academic year 2020-21, introducing Minor and Honors Degree in Engineering is the most exciting and interesting. The minor degree in any specialization will provide an opportunity to the students to undergo additional 18 credits and in job related courses. Similarly, in the Honors degree, the students will take advanced courses in their branch of study.

Eligibility:

Minor Degree

Students enrolled in any four-year undergraduate program in REVA University are eligible to undertake Minor Degree as given in the list and they should complete the requisite courses if any. Also, they should have a minimum of 7.5 CGPA, till 4th semester and should not have any arrears/backlogs in the previous semesters (till 4th semester). The students who wish to do a minor degree in any specialization must have cleared all the courses in the first attempt till 4th semester in their program of study.

Honors Degree

Students enrolled in any four-year undergraduate program in REVA University are eligible to undertake Honors Degree as given in the list and they should complete the requisite courses before enrolling for honors degree. Also, they should have a minimum of 7.5 CGPA, till 4th semester and should not have any arrears in the previous semesters (till 4th semester). The students who wish to do Honors degree in any specialization must have cleared all the courses in the first attempt till 4th semester in their program of study.

1. Director proposed the major courses for mechanical engineering and mechatronics students and minor courses for students from other schools.(Highlighted in the below table)
2. All members welcomed the initiation of major and minor courses which are useful to the students to get knowledge on diversify field and enhance the employment opportunity.
3. Dr.Vidyasagr H N suggested to put minimum strength for minor and major courses.
4. Dr.Mahesh A suggested to include Artificial Intelligence and IOT courses specifically for mechanical engineering students as a minor courses in future.

REVA UNIVERSITY SCHOOL OF MECHANICAL ENGG.

MINOR AND HONORS DEGREE (UG PROGRAM)

Name of the School	Minor Degree	Eligibility	Honors Degree	Eligibility
School of Computing and Information Technology	CSE (AI &ML)	EEE, CE, **ME, MECHATRONICS,** BIOELECTRONICS	Cyber Security	CSE, ECE, ECM, EECE
School of Computer Science and Engineering	CSE	EEE, CE, **ME, MECHATRONICS,** BIOELECTRONICS	Data Science Internet of Things	
School of Mechanical Engineering	**Manufacturing Engineering**	**CE, EEE, ECE, CSE, BIOELECTRONICS ECM, EECE**	**Advanced Manufacturing Technology**	**ME, MECHATRONICS, Robotics & Automation**
School of Civil Engineering	Construction Technology	EEE, ECE, **ME,** CSE, ECM, EECE, BIOELECTRONICS	Disaster Management / Green Technology and Sustainable Engineering	CE
School of Electrical and Electronics Engineering	Energy Engineering / Energy Technology	CE, ECE, CSE, ECM, BIOELECTRONICS	Electric Vehicle Technology	EEE, **ME,** ECE, **MECHATRONICS,** EECE, RA
School of Electronics and Communication Engineering	Robotics	EEE, CSE, CE, **ME,** CIT	Microelectronics	ECE, ECM, RA, **MECHATRONICS,** EECE, BIOELECTRONICS

Minor Degree in Management (All branches are eligible)

1. Organisation Behavior
2. Introduction to Business Analytics
3. Marketing Management
4. Human Resource Management
5. Leadership Management
6. Introduction to Financial Management

Students of B. Tech in Mechanical Engineering can obtain the following Minor and Honors degree as per the eligibility.

Minor Degree

1. Computer Science
2. Computer Science with AI and ML
3. Construction Technology
4. Robotics

Honours Degree

1. Advanced Manufacturing Technology

Students of B. Tech in Mechatronics Engineering can obtain the following Minor and Honors degree as per the eligibility.

Minor Degree

1. Computer Science
2. Computer Science with AI and ML

Honors Degree

1. Advanced Manufacturing Technology
2. Electric Vehicle Technology
3. Microelectronics

Course Structure for Minor Degree and Honors Degree

1. Minor Degree (For Other school students): Manufacturing Science

Sl. No	Title of the Course	HC	Credit Pattern & Credit Value				Contact Hours/ Week
			L	T	P	Total	
1	Manufacturing Science	HC	3	0	0	3	3
2	Statistical Quality Control	HC	3	0	0	3	3
3	Additive Manufacturing and 3D Printing	HC	3	0	0	3	3
4	Production and Operations Management	HC	3	0	0	3	3
5	Automation in Manufacturing	HC	3	0	0	3	3
6	Total Quality Management and Six Sigma	HC	3	0	0	3	3

2. Honors Degree: Advanced Manufacturing Technology

Sl. No	Title of the Course	HC	Credit Pattern & Credit Value				Contact Hours/ Week
			L	T	P	Total	
1	Manufacturing Science	HC	3	0	0	3	3
2	Advanced Materials	HC	3	0	0	3	3
3	Digital Manufacturing	HC	3	0	0	3	3
4	Operations and Quality Management	HC	3	0	0	3	3
5	Supply Chain Management	HC	3	0	0	3	3
6	Mechanical Geometric Dimensioning and Tolerancing	HC	3	0	0	3	3

Agenda 7: Approval of panel for BoE and list of examiners Board of Examiners for UG Program in Mechanical and Mechatronics Engineering 2020-21

Sl. No.	Name, Designation & Affiliation	Status	E-Mail & Phone Number
1	**Dr. K S Narayanaswamy** Director, School of ME, REVA University	**Chair Person**	dir.me@reva.edu.in **Mobile: 9902679446**
2	**Dr. K M Mrutanjayaswamy** Professor, Dayanandasagar University	**External Observer**	mrutuyanjayaswamykm@rediffmail.com **Mob : 9448013081**
3	**Dr L H Manjunath** Professor, School of ME,REVA University	**Member (Internal)**	manjunath.lh@reva.edu.in **Mob:9844318146**
4	**Dr N.Jagadeeswaran** Professor, School of ME,REVA University	**Member (Internal)**	njagadeeswaran@reva.edu.in **Mob:9880231308**
5	**Dr C D Hampali** Professor, School of ME,REVA University	**Member (Internal)**	hampali@reva.edu.in **Mob:9845234050**
6	**Prof L R Jagadeesh** Associate Professor, School of ME,REVA University	**Member (Internal)**	Jagadeesh.lr@reva.edu.in **Mob:9844074156**
7	**Dr.Mahesh L** Associate Professor, School of ME,REVA University	**Member (Internal)**	maheshl@reva.edu.in **Mob:9964272378**
8	**Dr.Niranjan Hiremath** Associate Professor, School of ME,REVA University	**Member (Internal)**	niranjanh@reva.edu.in **Mob:9916699736**
9	**Dr.Veerabhadrappa T** Asst Professor, School of ME,REVA University	**Member (Internal)**	veerbhadrappa@reva.edu.in **Mob:9685666114**
10	**Dr.Shanwaz Patil** Asst Professor, School of ME,REVA University	**Member (Internal)**	Sahwanz.patil@reva.edu.in **Mob:8197507473**
11	**Dr.Vijeekumar** Asst Professor, School of ME,REVA University	**Member (Internal)**	vijeekumar@reva.edu.in **Mob:9902325016**
12	**Prof. Varun Kumar Reddy** Asst Professor, School of ME,REVA University	**Member (Internal)**	varunkumarressy@reva.edu.in **Mob:8217344951**
13	**Dr.Raju B S** Professor, School of ME,REVA University	**Member & Coordinator(Internal)**	raju.bs@reva.edu.in **Mob:9880655105**

Board of Examiners for PG Program (Machine Design) in Mechanical Engineering 2020-21

Sl. No.	Name, Designation & Affiliation	Status	E-Mail & Phone Numb
1	**Dr. K S Narayanaswamy** **Director, School of ME**	**Chair Person**	**dir/me@reva.edu.in**
2	**Dr L H Manjunath** Professor, School of ME,REVA University	**Member (Internal)**	manjunath.lh@reva.edu.in **Mob:9844318146**
3	**Dr.Niranjan Hiremath** Associate Professor, School of ME,REVA University	**Member (Internal)**	niranjanh@reva.edu.in **Mob:9916699736**

Agenda-8: Approval of Academic Calendar, Lesson plan format, Scheduling of online classes and online Practical session delivery

School of Mechanical Engineering
ODD SEM-I year B.Tech/PG/Lateral Entry- 2020 Batch
Calendar of Events (DEC 2020-MAY 2021)
Schedule of Tests/ Semester End Examinations for B.Tech-ME/MECT

Program	UG/PG	Date of Commencement	IA1	Results	IA2	Results	Last Working Date	Practical Preparations	SEE Examination	Commencement of Even Semester
B.Tech	UG	16 Dec2020	25/2/2021 to 28/2/2021	1/3/2021	5/4/2021 to 7/4/2021	10/4/2021	4/4/2021	8/4/2021 to 12/4/2021	12/5/2021 to 21/5/2021	24/5/2021
M.Tech	PG	11 Jan2021	22/2/2021 to 24/2/2021	27/2/2021	22/3/2021 to 24/3/2021	27/3/2021	27/3/2021	29/3/2021 To 31/3/2021	1/4/2021 to 12/4/2021	15/4/2021
B.Tech	UG (lateral Entry)	11 Jan2021	22/2/2021 to 24/2/2021	27/2/2021	22/3/2021 to 24/3/2021	27/3/2021	27/3/2021	29/3/2021 To 31/3/2021	1/4/2021 to 12/4/2021	15/4/2021

(Due to Pandemic Situation and Lockdown Guidelines of Govt. of Karnataka the Online SEE examination for I semester Students of 2020-24 batch has been Scheduled online by COE of REVA University.)

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

School of Mechanical Engineering
EIGHT SEM- B.Tech - 2017 Batch
Calendar of Events (DEC 2020-MAY 2021)
Schedule of Tests/ Semester End Examinations for B.Tech-ME

Program	UG/ PG	Date of Commencement	IA1	Results	IA2	Results	Last Working Date	Practical Preparations	SEE Examination
B.Tech	UG	25/2/2021	6/4/2021 to 9/4/2021		6/5/2021 to 10/5/2021	13/5/2021			June End (Tentative)

(Due to Pandemic Situation and Lockdown Guidelines of Govt. of Karnataka the Online classes for 8 semester Students have been scheduled by School. Tentative dates for SEE Examination are shown, Depending on the Covid -19 situations the dates will be scheduled)

School of Mechanical Engineering
IV/ VI SEM- B.Tech – 2018, 2019 Batch
Calendar of Events (FEB 2021-JUNE 2021)
Schedule of Tests/ Semester End Examinations for B.Tech-ME/MECT

Program	UG /PG	Date of Commencement	IA1	Results	IA2	Results	Last Working Date	Practical Preparations	SEE Examination	Commencement of ODD Semester
B.Tech	UG	25/2/2021	6/5/2021 to 10/5/2021		June 2nd week (Tentative)				June End (Tentative)	

(Due to Pandemic Situation and Lockdown Guidelines of Govt. of Karnataka the Online classes for 4 and 6 semester Students have been Scheduled by School, Tentative dates for tests and SEE Examination are shown , Depending on the Covid -19 situations the dates will be scheduled)

1. Dr. Narayanaswamy BOS chairperson presented panel of examiners and BOE members for the approval for smooth functioning of exam activities
2. Also presented the calendar of events and mode of classes conducted during pandemic period. Classes conducted in OFF line and On Line mode through virtual plat form Microsoft Team.
3. Exams will be conducted on line mode for 50 marks.
4. Along with University, academic activities of the school conducted as per guide lines of UGC and Government of Karnataka issued time to time.
5. Members are happy about the activities conducted.

Agenda-9: Approval of Research Activities: Publications, Patents and Consultancy.

To promote research activities among Students and faculty, School has established Centre of Excellence and Research centers. The outcomes of these labs are:

1. Publications
2. Patents
3. Consultancy
4. Product development.

Each faculty along with student group are encouraged to publish their research work in reputed journals and conferences. The research audit will be done by R&I to award best researcher considering Contribution towards Publications, patents, Consultancy, Product Development.

1. Dr. K S Narayanswamy informed to the members about the research activities in the school.
2. Over 200 papers will be published and over 40 patents will be applied
3. Over Rs 2 crores project proposal is submitted to various agencies of state and central government in the field of materials, Vibrations and Bio fuels.
4. Over 2 Crore rupees project fund is received by the school R&D centre from VGST and DST-SERB.
5. All the faculties are motivated to publish 3+ papers and try to get minimum one patent

Agenda-10: Approval of bi-annual progress presentations of research scholars of 2015-16 to 2020-21 batches.

1. Dr. K S Narayanaswamy brings to notice of the members about Ph.D program in the school.
2. School is having 22 PhD qualified faculty who are eligible to guide the research scholars
3. School having separate R&D lab to facilitate research in the field of Materials, Vibrations and Bio fuels.
4. Interested candidates can apply for PhD and they have to pass entrance test and undergo work course specified by the university.
5. The research Scholars are expected to submit the Bi-annual progress report by 10th April. The presentation is scheduled in the last week of June 2021.
6. BOS members approved the format of Interim report and process followed by the school about progress of the research scholars.

Agenda-11: Approval of measures taken to enhance the academic performance of slow and average learners.

Agenda-12: Approval of measures taken to encourage research culture and start-up culture among students

Agenda-13: Approval of measures taken to enhance placement activities for final year students

1. Dr. K S Narayanswamy brings to notice of the members about action taken on slow learners, research culture in students and placement activities.

2. 25-30 students are assigned to mentor who keeps track of their attendance and performance , the same will be informed to Director of school if special counselling is required
3. After Internal assessment mentors/course teacher will identify the poor performers and remedial classes will be conducted.
4. Mentor will track the performance of these students weekly basis.
5. To promote research culture in students, advice to take recent topic for final year project and encouraged to publish paper in national conference which will be organized by the school in the month of May/June every year.
6. Students are encouraged to apply for patent for their innovation and school will support for applying.
7. From 3rd sem to 6th sem placement training will be conducted by reputed trainer as per the time table.
8. In 2018 scheme many software courses are introduced to enhance the placement opportunities
9. Minimum 10 invited talks by industry experts and 2 skill development programs are conducting every year to expose the students to industry activities and recent advances in the field of mechanical engineering.

Agenda-14: Approval of online IA and SEE Marks distribution and Examination pattern for 2020-21 and 2021-22 and Result Analysis of Odd Semester End Examination- 2020-21.

Dr. K S Narayanaswamy Director proposed the following points related to assessment mode during lock down period and result analysis

1. Two internal assessment will be conducted on 6th week and 12th week of the semester
2. Each assessment will be conducted in two mode such as descriptive type (15marks) through on line and Viva (15 marks). The average of two marks will be considered as final marks of particular IA.
3. Two assignments carry 10 marks and quiz carries 10 marks. The total internal marks will be 50 marks.
4. SEE exam will be conducted for 50 marks with new pattern through on line plat form.
5. Odd sem result is bring to the notice of the members, it is observed that 3rd sem and 5th sem result is poor.
6. Director assured to improve the result by conducting special classes for failed candidates.

Agenda-15: Approval of UG/PG project progress presentations and evaluations through online

Agenda-16: Approval of change in time table and number of hours for effective delivery through online

1. Project evaluation is done in 3 phases first two phases evaluated for 25 marks each and final evaluation is done for 50 marks.
2. Presentation has been done through Microsoft on line plat form. SEE time table has been made, for each batch 30 minutes slot is provided for presentation and two examiners including guide evaluate the project work.

3. Director presented time table for on lie classes after the lock down announced by state government.

Agenda-17: Approval of other academic activities: FDPs, SDPs, Skill development Programmes, Conferences, Seminars, Expert talks, Industrial visits, Project exhibitions, Technical Club activities, outreach activities ,NSS and NCC.

Director highlighted the school academic activities, co-curricular and extracurricular activities for the enhancement of knowledge, skill of students and faculty.

1. School is conducting minimum 2 FDP per year and 6 skill development activities for students in recent areas.
2. Minimum 10 experts' talks are arranged for students from industry experts to minimize the gap between industry and academia.
3. One national conference and one international conference are organizing to promote research culture in students and faculty.
4. School is having 9 clubs and chapters through which expert talks, quiz program, competitions, internship and employment opportunity will be created.
5. School adopted Bhattara Marenahalli Govt School to develop as per the new initiative of Govt of Karnataka.
6. Through outreach and NSS many social activities are conducted such as blood donation camp Swachha Abhiyan, health awareness program.
7. Members appreciate the initiation taken by the school for social service, club activities and school adoption.
8. Mr. Mahesh A suggested special training program for enhancing teaching skills for faculty.
9. Mr. Raghvendra suggested to introduce any course related to agriculture.
10. Dr. Bhagavanalu Dean IQAC highlighted the university action points on identifying the interest of the students and give training on 4 fields like Entrepreneurship, Agriculture, Politics and Administration (IAS/IPS).

At the end Chairperson of BOS meeting accepted to revise the scheme and syllabus as per the suggestion made by BOS members and implement in this academic year. He also expressed heartfelt thanks to all BOS members for valuable suggestion and their kind presence through virtual session.

The meeting ended with vote of thanks by Dr. Mahesh L Assistant Director

17/06/2021

Dr. Mahesh L

17/06/21

Dr. K S Narayanaswamy
Director
School of Mechanical Engineering
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru - 560 064

REVA UNIVERSITY ★ SCHOOL OF MECHANICAL ENGG ★

REVA University
School Of Mechanical Engineering
Scheme of Evaluation
Computer Aided Engineering Drawing (B20ME0101)

Q	Title	Max marks	Manual Drawing	Computerization	Manual drawing Marks distribution	Computerization drawing Marks distribution
1.a	Projection of points	10	4	6	XY Line -1 M Front View-1M Top View and Profile View -2M	XY Line -1 M Front View-2M Top View and Profile View - 3M
1.b	Projection of Lines	15	6	9	XY Line - 1M Front View-3M Top View -2M	XY Line –1 M Front View-4M Top View –4M
2.a	Projection of points	10	4	6	XY Line -1 M Front View-1M Top View and Profile View -2M	XY Line -1 M Front View-2M Top View and Profile View -3M
2.b	Projection of Planes	15	6	9	XY Line -1 M First Position-1.5M Second Position-1.5M Third Position-2M	XY Line-1 M First Position-2M Second Position-2M Third Position-4M
3.	Projection of Prism	25	10	15	XY Line -1 M First position-3M Second position-2M Third position-4M	XY Line -1 M First position-4M Second position-4M Third position-6M
4.	Projection of Pyramids	25	10	15		
5.	Development of lateral surfaces	25	25	Nil	XY line -1 M Front View-7M Top View-8M Development or True sectional vew-9M	NIL
6.	Section of solids	25	25	Nil		
7	Isometric Projections	25	25	Nil	First solid-12M Second solid-13M	Nil
8.	Isometric Projections	25	25	Nil		

Director/ME

Director
School of Mechanical Engineering
REVA University
Rukmini Knowledge Park, Kattigena
Yelahanka, Bengaluru - 560 064

25/03/2021

REVA University
School Of Mechanical Engineering
Minutes of meeting

1. Assistant director Dr Mahesh L sir welcomed all the faculty member who are engaging CAED for CSIT, CSE, MECHANICAL Engineering and Mechatronics Engineering.
2. Computer aided engineering drawing semester end examination scheme and question paper has been discussed and following points as been concluded.
   - All faculty members expressed to conduct Unit 1 and Unit 2, both manual drawing and computerization. Hence it is decided to conduct unit 1 and unit 2 of CAED both manual and computerization.
   - Unit 3 and Unit 4 of CAED is only manual drawing no computerization is required

3. Since there were no further queries hence the meeting was concluded with the permission of Assistant Director sir.

faculties

1) KKM
2) Avi -
3) SPS -
4) LNS -
5) M.G. -
6) SPB -
7) MGK -
8) CB -
9) GST
10) D.M
11) ABK
12) A.K.R
13) STR

31/3/21

Director/MF

Director
School of Mechanical Engineering
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru - 560 064

REVA UNIVERSITY

SCHOOL OF MECHANICAL ENGINEERING

Action Taken Report: 9th BOS 01.07.2021

As per the recommendation of 9th BOS(UG/PG/PhD) committee, the following action has been taken.

1. The scheme and syllabus approved by the members of UG Mechanical/UG mechatronics/PG and PhD programs have been updated in the syllabus/hand book of 2021-22 academic year and same is presented in the academic council.

2. The following suggestions proposed by BOS members has been incorporated and updated in syllabus/hand book of academic year 2021-22 for 2020-24 batch of B.Tech Mechanical Engineering and B.Tech Mechatronics Engineering.
   a. 3rd Sem Mechanics of Solids course title is renamed as Mechanics of Materials
   b. 4th Sem Machining Science course title is renamed as Machining Process
   c. 5th Sem Internal Combustion course title is renamed as Thermal Engineering systems
   d. In 4th Sem Manufacturing science course Unit 4 topic title is changed as non-conventional methods of manufacturing
   e. In 4th sem Kinematics and Dynamics of Machine course balancing of reciprocating masses, discussion on porter governor and speed synchronizer topics are introduced
   f. In 4th sem B.Tech Mechatronics Engineering, Ardino and Rasberry microcontrollers topic is introduced in Unit 4 of Microcontrollers and Applications course.
   g. Smart passive sensors topic is introduced in Unit 1 of Sensors and Actuators course In 4th sem B.Tech Mechatronics Engineering.

3. The changes recommended by BOS (MOM of Agenda 3) has been incorporated in the course content of 2018-22 scheme B.Tech Mechanical Engineering and updated in the syllabus/hand book of 2021-22 academic year.

4. The changes recommended by BOS (MOM of Agenda 4) has been incorporated in the course content of 2019-23 scheme B.Tech Mechatronics Engineering and updated in the syllabus/hand book of 2021-22 academic year.

5. As per the recommendation of the Committee only one MOOC course in 2nd year M.Tech is introduced as Open Elective and Soft Core-4 (MOOC Course) credit is adjusted to internship to give weightage for research exposure.

6. Kannada course for kannadiga's and non kannadiga's recommended by University is introduced in 2nd year B.Tech Program.

7. The following foundation courses recommended by University are proposed in 3rd and 4th semester and curriculum is incorporated in the syllabus/hand book of concerned program

   a. Communication skills
   b. Indian constitution and Professional Ethics
   c. Universal Human Values
   d. Management Science
   e. Environmental Science

10/7/2021
Dr. Mahesh L
Asst Director/BOS Member

10/7/21
Prof L R Jagadeesh
Coordinator/BOS Member

10/7/21
Dr. K S Narayanaswamy
Chair Person-BOS and Director

Director
School of Mechanical Engineering
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru - 560 064

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

Agenda-1: Approval of Scheme of Instructions from 3rd to 8th semester and syllabus of 3rd and 4th Semester of B. Tech Mechanical Engineering 2020-24 Batch

Minutes of the Meeting

Sl. No	Name of the BOS member	Comments on Scheme and Content
1	**Dr. Mallikarjun Reddy**	1. Suggested to recheck the title 3rd sem Mechanics of solids as Mechanics of Materials or Strength of materials 2. Update the text books and reference books with new edition 3. Clubbing of 2 courses in to one course is accepted 4. Change the title of 4th sem Machining Science as Machining Process 5. Suggested to introduce balancing of reciprocating masses in Kinematics and Dynamics of Machines course of 4th sem 6. No issues on remaining courses in 3rd and 4th sem
2	**Dr. Ramesh M R**	1. Suggested to recheck the title 3rd sem Mechanics of solids as Mechanics of Deformable Bodies 2. The content of 4th Sem Material Science syllabus is more with respect to 3 credits, hence simplify the syllabus by removing the Engineering Materials topic. 3. In 5th sem instead of IC Engines make Automobile Engineering as a HC by adding hybrid vehicle and Electric vehicles topic 4. Change the title of 4th sem Machining Science as Machining Process 5. Club shaping and planning as a one topic 6. No issues on remaining courses in 3rd and 4th sem Mechanical Engineering
3	**Dr. Vidyasagar H N**	1. Recheck the title 3rd sem Mechanics of solids as Mechanics of materials or Strength of Materials 2. Add research methodology component in technical communication 3. No issue on last topic of Material Science course 4. Appreciate about introduction of MATLAB as separate lab in 4th Sem and suggested to Include 2 to 3 MATLAB programs in all the semester 5. No issues on other courses
4	**Dr. Sudheer Reddy J**	1. Use of CATIA tool in 4th sem Machine Drawing is more useful than other software's. Happy about school is planned to use same tool 2. Suggested to refer National Institute of Design for framing the content 6th sem Industrial Product Design Course 3. Recheck the title of the IC engine course in 5th sem and select suitable title for the course 4. Suggested to include sensors in Mechanical Measurement and metrology course in 4th sem. 5. Recheck the governor syllabus and suggested to introduce one governor 6. No issues on other courses

5	**Mr. S Hareesha**	1. Suggested to introduce materials structure study in the materials lab 2. Smart structure is present demand in aerospace , suggested to include in the curriculum 3. Include Model based Drawings(MBD) in machine Drawing 4. Other courses are as per the requirement of mechanical engineering
6	**Dr. Mahesh A**	1. The content of 4th Sem Material Science course is more, revision is required. Last topic in unit 4 may be removed 2. Change the title of 4th sem Machining Science as Manufacturing Science or any other suitable title 3. Rename the heading unconventional machining as non-conventional machining in 4th sem Machining Science 4. Suggested to add non-contact type measurement techniques and industry measuring instruments in 4th sem Mechanical Measurements and Metrology 5. Add topic like patent, copy rights while framing technical documentation course. 6 No issues on other courses
7	**Dr. A R K Swamy**	1. Suggested to recheck the title 3rd sem Mechanics of solids as Mechanics of Materials or Strength of materials 2. Introduce simple problems on gear and gear trains 3. Clubbing of 2 courses in to one course is accepted 4. All other courses content and scheme is accepted
8	**Mr. Raghavendra A S**	1. Testing of welding joint is major industry concern, hence Root test and Ultimate test for welded joints to be included in lab component of 3rd sem Mechanics of Solids course 2. Recommended to include RFID measuring technique in 4th sem Mechanical Measurements and Metrology 3. Governors are having limited applications at present, hence speed synchronizer can be adopted in 4th sem Kinematics and Dynamics course 4. More focus on Fits and Tolerance 5. All other courses content and schemes are acceptable
9	**Mr. Sendil Kumar**	1. Suggested to introduce Smart sensors in 4th sem Mechanical Measurements and Metrology 2. All other courses content of 3rd and 4th sem and schemes of 1st to 8th sem are acceptable
	Mr. Vidysagar R	1. Material Science syllabus is heavy, needs revision 2. Introducing MATLAB will be useful to students for career perspective

Note: Scheme & Syllabus revised considering all the suggestions of the BOS Members.

B. Tech in Mechanical Engineering
Scheme of Instructions 2020-24

SEMESTER-1 (Cycle-1)

Sl. No	Course Code	Title of the Course	HC/FC/SC/OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours / Week
					L	T	P	Total	
1	B20AS0103	Differential Equations and Linear Algebra	FC	PUC/ Equivalent	3	0	0	3	3
2	B20AS0107	Physics for Engineers	FC	PUC/ Equivalent	3	0	1	4	5
3	B20CS0101	Introduction to Data Science	HC	PUC/ Equivalent	2	0	1	3	4
4	B20ER0101	Introduction to Engineering Mechanics	HC	PUC/ Equivalent	3	0	0	3	3
	Practical /Term Work / Practice Sessions/Online /MOOC								
5	B20ME0104	Entrepreneurship	HC	PUC/ Equivalent	1	0	0	1	1
6	B20EC0101	IoT and Applications	HC	PUC/ Equivalent	1	0	1	2	3
7	B20ME0101	Computer Aided Engineering Drawing	HC	PUC/ Equivalent	2	0	1	3	4
				TOTAL	**4**	**0**	**2**	**6**	**23**
				TOTAL SEMESTER CREDITS				19	
				TOTAL CUMULATIVE CREDITS				19	
				TOTAL CONTACT HOURS				23	

SEMESTER-2 (Cycle-2)

Sl. No	Course Code	Title of the Course	HC/FC/SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20AS0205	Vector Calculus and Partial Differential Equations	FC	B20AS0103	3	1	0	4	4
2	B20AS0201	Applied Chemistry	FC	-	3	0	0	3	3
3	B20CI0101	Introduction to Python programming	HC	-	2	0	1	3	4
4	B20EE0101	Basic Electrical and Electronics Engineering	HC	-	3	0	1	4	5
5	B20ER0201	Elements of Mechanical Engineering	HC	-	3	0	1	4	5
	Practical /Term Work / Practice Sessions/Online /MOOC								
6	B20AS0109	Biology for Engineers	FC	-	1	0	0	1	1
7	B20ME0102	Design Thinking	HC	-	1	0	1	2	3
				TOTAL	**2**	**0**	**1**	**3**	**25**
				TOTAL SEMESTER CREDITS				21	
				TOTAL CUMULATIVE CREDITS				40	
				TOTAL CONTACT HOURS				25	

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

SEMESTER-3 (Cycle-1)

Sl. No	Course Code	Title of the Course	HC/FC/ SC/OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20AS0304	Laplace Transforms and Fourier Series	HC	B20AS0205	3	0	0	3	3
2	B20ER0301	Engineering Thermodynamics	HC		3	1	0	4	4
3	B20ER0302	Material Science	HC		3	0	0	3	4
4	B20ER0303	Manufacturing Science	HC		3	0	1	4	5
5	B20ER0304	Mechanics of Materials	HC		3	0	1	4	5
Practical /Term Work / Practice Sessions/Online /MOOC									
6	B20AH0301	Communication Skill	FC		2	0	0	2	2
7	B20LS0301	Indian constitution and Professional Ethics	FC		2	0	0	2	2
8	B20AHM401	Universal Human Values	FC		0	0	0	0	2
				TOTAL	**19**	**1**	**2**	**22**	**27**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				62	
				TOTAL CONTACT HOURS				27	

SEMESTER-4 (Cycle-2)

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20AS0403	Probability and Sampling Theory	HC	B20AS0304	3	0	0	3	3
2	B20ER0401	Mechanical Measurements and Metrology	HC		3	0	1	4	5
3	B20ER0402	Machining Processes	HC		3	0	1	4	5
4	B20ER0403	Kinematics and Dynamics of Machines	HC		3	0	1	4	5
Practical /Term Work / Practice Sessions/Online /MOOC									
5	B20ER0404	Computer Aided Machine Drawing	HC	B20ME0101	1	0	2	3	5
6	B20MG0301	Management Science	HC		2	0	0	2	2
7	B20AS0303	Environmental Science	FC		2	0	0	2	2
8	B20ER0405	MATLAB for Mechanical Engineers	HC		0	0	1	1	2
9	B20AHM301	Advanced Kannada	FC		0	0	0	0	2
	B20AHM302	Basics of Kannada	FC		0	0	0	0	2
				TOTAL	**17**	**0**	**5**	**22**	**29**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				84	
				TOTAL CONTACT HOURS				29	

SEMESTER-5

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20ER0501	Design of Machine Elements	HC		3	1	0	4	4
2	B20ER0502	Fluid Mechanics and Machines	HC		3	0	1	4	5
3	B20ER0503	Thermal Engineering Systems	HC		3	0	1	4	5
Professional Elective-1									
4	B20ERS511	Smart Materials	SC	B20ER0302	3	0	0	3	3
	B20ERS512	Experimental Stress Analysis	SC		3	0	0	3	3
	B20ERS513	Energy Technology	SC		3	0	0	3	3
	B20ERS514	Automotive Engineering	SC		3	0	0	3	3
	B20ERS515	Statistical Quality Control	SC		3	0	0	3	3
Open Elective-1 for other school students									
5	B20MEO501	**Smart Materials**	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
6	B20ER0504	Flow Analysis Using Ansys Fluent	HC		1	0	1	2	3
7	B20PA0501	Indian Tradition and Culture	FC		2	0	0	2	2
				TOTAL	**18**	**1**	**3**	**22**	**25**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				106	
				TOTAL CONTACT HOURS				25	

SEMESTER-6

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20ER0601	Heat Transfer	HC	B20ER0301	3	0	1	4	5
2	B20ER0602	Finite Element Methods	HC	B20ER0304	3	0	1	4	5
Professional Elective-2									
3	B20ERS611	Additive Manufacturing and 3D Printing	SC		3	0	0	3	3
	B20ERS612	Design for Manufacture, Assembly and Environment	SC		3	0	0	3	3
	B20ERS613	Turbomachines	SC	B20ER0502	3	0	0	3	3
	B20ERS614	Electric and Hybrid Vehicles	SC		3	0	0	3	3
	B20ERS615	Production and Operations Management	SC	B20ERS515	3	0	0	3	3
Professional Elective-3									
4	B20ERS621	Automation in Manufacturing	SC		3	0	0	3	3
	B20ERS622	Robotic Systems-Kinematics	SC		3	0	0	3	3
	B20ERS623	Refrigeration and Air-Conditioning	SC		3	0	0	3	3
	B20ERS624	Aircraft Fundamentals	SC		3	0	0	3	3
	B20ERS625	Industrial Engineering	SC		3	0	0	3	3
Open Elective-2 for other school students									
5	B20MEO601	Mechatronics	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
6	B20ER0603	Research Based Mini Project	HC		0	0	2	2	6
7	B20ER0604	Technical Documentation	FC		1	0	0	1	1
8	B20ER0605	Industrial Product Design	HC		2	0	0	2	2
				TOTAL	**18**	**0**	**4**	**22**	**28**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				128	
				TOTAL CONTACT HOURS				28	

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

SEMESTER-7

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20ER0701	Vibrations and Noise Engineering	HC		2	0	1	3	4
2	B20ER0702	Computer Integrated Manufacturing	HC		2	0	1	3	4
3	B20ER0703	Mechatronics and Control Systems	HC		3	0	0	3	3
4	B20ER0704	Engineering Economics and Financial Management	HC		3	0	0	3	3
Professional Elective-4									
5	B20ERS711	IoT in Manufacturing	SC		3	0	0	3	3
	B20ERS712	Robotic Systems-Dynamics and Control	SC	B20ERS622	3	0	0	3	3
	B20ERS713	Computational Fluid Dynamics	SC		3	0	0	3	3
	B20ERS714	MEMS	SC		3	0	0	3	3
	B20ERS715	Total Quality Management and Six Sigma	SC	B20ERS615	3	0	0	3	3
Professional Elective-5									
6	B20ERS721	Hydraulics and Pneumatics	SC		3	0	0	3	3
	B20ERS722	Tribology	SC		3	0	0	3	3
	B20ERS723	Solar Energy –Thermal and Photovoltaic	SC		3	0	0	3	3
	B20ERS724	Autonomous Vehicles	SC		3	0	0	3	3
	B20ERS725	Operation Research	SC		3	0	0	3	3
Open Elective-3 for other school students									
7	B20MEO701	Robotics Engineering and Applications	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
8	B20ER0705	Project Phase-1	HC		0	0	1	1	3
				TOTAL	**19**	**0**	**3**	**22**	**26**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				150	
				TOTAL CONTACT HOURS				26	

SEMESTER-8

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
Open Elective-4 for other school students									
1	B20MEO801	Engineering Economics and Financial Management	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
2	B20ER0801	Major Project	HC		0	0	7	7	21
				TOTAL	**3**	**0**	**7**	**10**	**24**
								TOTAL SEMESTER CREDITS	10
								TOTAL CUMULATIVE CREDITS	160
								TOTAL CONTACT HOURS	24

Agenda-2. Approval of Scheme of Instructions from 3rd to 8th semester and syllabus of 3rd and 4th Semester of B.Tech Mechatronics Engineering 2020-24 Batch

Minutes of Meeting

1. The courses like mathematics, mechanics of solids, mechanical measurements, kinematics and dynamics of machines, the content is same as mechanical engineering. Hence same suggestions will be implemented for these courses.
2. Dr. A R K Swamy suggested to teach only basic concepts in Thermal Engineering.
3. Dr. Mallikarjuna Reddy highlighted importance of software tools like Simulink and other mechanical and electronics/electrical software's, are recommended to implement various semesters.
4. Dr. R C Biradar suggested to include Ardino and Rasberry microcontrollers in Unit 4 of 4th sem Microcontrollers and Applications course
5. Mr. Chandru Nadig suggested to introduce Smart passive Sensors(SPS) in Microcontrollers course
6. No issues in content of other courses such as Signals and Networks, Analog and Digital Circuits.
7. All members are recommended that the Schemes of 5th to 8th semesters are acceptable

B. Tech in Mechatronics Engineering

Scheme of Instructions 2020-24

SEMESTER-1 (Cycle-1)

Sl. No	Course Code	Title of the Course	HC/FC/SC/OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours / Week
					L	T	P	Total	
1	B20AS0103	Differential Equations and Linear Algebra	FC	PUC/ Equivalent	3	0	0	3	3
2	B20AS0107	Physics for Engineers	FC	PUC/ Equivalent	3	0	1	4	5
3	B20CS0101	Introduction to Data Science	HC	PUC/ Equivalent	2	0	1	3	4
4	B20ER0101	Introduction to Engineering Mechanics	HC	PUC/ Equivalent	3	0	0	3	3
	Practical /Term Work / Practice Sessions/Online /MOOC								
5	B20ME0104	Entrepreneurship	HC	PUC/ Equivalent	1	0	0	1	1
6	B20EC0101	IoT and Applications	HC	PUC/ Equivalent	1	0	1	2	3
7	B20ME0101	Computer Aided Engineering Drawing	HC	PUC/ Equivalent	2	0	1	3	4
				TOTAL	4	0	2	6	23
				TOTAL SEMESTER CREDITS				19	
				TOTAL CUMULATIVE CREDITS				19	
				TOTAL CONTACT HOURS				23	

SEMESTER-2 (Cycle-2)

Sl. No	Course Code	Title of the Course	HC/FC/SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20AS0205	Vector Calculus and Partial Differential Equations	FC	B20AS0103	3	1	0	4	4
2	B20AS0201	Applied Chemistry	FC	-	3	0	0	3	3
3	B20CI0101	Introduction to Python programming	HC	-	2	0	1	3	4
4	B20EE0101	Basic Electrical and Electronics Engineering	HC	-	3	0	1	4	5
5	B20ER0201	Elements of Mechanical Engineering	HC	-	3	0	1	4	5
	Practical /Term Work / Practice Sessions/Online /MOOC								
6	B20AS0109	Biology for Engineers	FC	-	1	0	0	1	1
7	B20ME0102	Design Thinking	HC	-	1	0	1	2	3
				TOTAL	**2**	**0**	**1**	**3**	**25**
				TOTAL SEMESTER CREDITS				21	
				TOTAL CUMULATIVE CREDITS				40	
				TOTAL CONTACT HOURS				25	

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

SEMESTER-3 (Cycle-1)

Sl. No	Course Code	Title of the Course	HC/FC/ SC/OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20AS0304	Laplace Transforms and Fourier Series	HC	B20AS0205	3	0	0	3	3
2	B20ES0301	Thermal Engineering	HC		3	1	0	4	4
3	B20ES0302	Signals and Networks	HC		3	0	0	3	3
4	B20ES0303	Analog and Digital Circuits	HC		3	0	1	4	5
5	B20ER0304	Mechanics of Materials	HC		3	0	1	4	5
Practical /Term Work / Practice Sessions/Online /MOOC									
6	B20AH0301	Communication Skill	FC		2	0	0	2	2
7	B20LS0301	Indian constitution and Professional Ethics	FC		2	0	0	2	2
8	B20AHM401	Universal Human Values	FC		0	0	0	0	2
				TOTAL	19	1	2	**22**	**27**
					TOTAL SEMESTER CREDITS			**22**	
					TOTAL CUMULATIVE CREDITS			**62**	
					TOTAL CONTACT HOURS			**27**	

SEMESTER-4 (Cycle-2)

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20AS0403	Probability and Sampling Theory	HC	B20AS0304	3	0	0	3	3
2	B20ES0401	Mechanical Measurements and Instrumentation	HC		3	0	1	4	5
3	B20ER0403	Kinematics and Dynamics of Machines	HC		3	0	1	4	5
4	B20ES0402	Microcontrollers and Applications	HC		3	0	1	4	5
5	B20ES0403	Sensors and Actuators	HC		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
6	B20MG0301	Management Science	HC		2	0	0	2	2
7	B20AS0303	Environmental Science	FC		2	0	0	2	2
8	B20AHM301	Advanced Kannada	FC		0	0	0	0	2
	B20AHM302	Basics of Kannada	FC		0	0	0	0	2
				TOTAL	**19**	**0**	**3**	**22**	**27**
					TOTAL SEMESTER CREDITS			22	
					TOTAL CUMULATIVE CREDITS			84	
					TOTAL CONTACT HOURS			27	

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

SEMESTER-5

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20ES0501	Electrical Machines and Drives	HC		3	0	0	3	3
2	B20ER0302	Material Science	HC		3	0	0	4	3
3	B20ES0502	Control System	HC		3	0	1	3	5
4	B20ES0503	Robotics	HC		3	0	1	4	5
Professional Elective-1									
4	B20ESS511	CNC Machines	SC		3	0	0	3	3
	B20ESS512	Conventional and Electrical Vehicles	SC		3	0	0	3	3
	B20ESS513	Product Design and Development	SC		3	0	0	3	3
	B20ESS514	Data Structures	SC		2	0	1	3	4
Open Elective-1 for other school students									
5	B20MEO501	Smart Materials	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
7	B20PA0501	Indian Tradition and Culture	FC		2	0	0	2	2
				TOTAL	**20**	**0**	**2**	**22**	**25**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				106	
				TOTAL CONTACT HOURS				25	

REVA UNIVERSITY ★ SCHOOL OF MECHANICAL ENGG. ★

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

SEMESTER-6

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20ES0601	Automation in Production	HC		3	0	1	4	5
2	B20ES0602	Introduction to Finite Element Methods	HC	B20ER0304	3	0	1	4	5
Professional Elective-2									
3	B20ESS611	Robotics Dynamics and Control	SC		3	0	0	3	3
	B20ESS612	Hybrid Vehicles	SC		3	0	0	3	3
	B20ESS613	Pilotless Aircrafts and Drones	SC		3	0	0	3	3
	B20ESS614	Computer Vision	SC		3	0	0	3	3
Professional Elective-3									
4	B20ESS621	Intelligent Vehicle Technology	SC		3	0	0	3	3
	B20ESS622	Aircraft Flight and Control System	SC		3	0	0	3	3
	B20ESS623	Operation Management	SC		3	0	0	3	3
	B20ESS624	Machine Learning with Python	SC		2	0	1	3	4
Open Elective-2 for other school students									
5	B20MEO601	Mechatronics	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
6	B20ES0603	Research Based Mini Project	HC		0	0	2	2	6
7	B20ER0604	Technical Documentation	FC		1	0	0	1	1
8	B20ER0605	Industrial Product Design	HC		2	0	0	2	2
				TOTAL	**18**	**0**	**4**	**22**	**28**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				128	
				TOTAL CONTACT HOURS				28	

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

SEMESTER-7

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	B20ER0501	Design of Machine Elements	HC		3	1	0	4	4
2	B20ES0701	Introduction to Hydraulics and Pneumatics	HC		3	0	1	4	5
3	B20ES0702	Digital Signal Processing	HC		3	0	1	4	5
Professional Elective-4									
4	B20ESS711	Additive Manufacturing	SC		3	0	0	3	3
	B20ESS712	Robotics Engineering and Applications	SC		3	0	0	3	3
	B20ESS713	Smart Materials	SC		3	0	0	3	3
	B20ESS714	Engineering Economics and Financial Management	SC		3	0	0	3	3
Professional Elective-5									
5	B20ESS721	IoT and Cyber Physical Systems	SC		3	0	0	3	3
	B20ESS722	Virtual and Augmented Reality	SC		3	0	0	3	3
	B20ESS723	Safety and Security of Automotive Systems	SC		3	0	0	3	3
	B20ESS724	Artificial Intelligence	SC		3	0	0	3	3
Open Elective-3 for other school students									
6	B20MEO701	Robotics Engineering and Applications	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
7	B20ES0703	Project Phase-1	HC		0	0	1	1	3
				TOTAL	**18**	**1**	**3**	**22**	**26**
				TOTAL SEMESTER CREDITS				22	
				TOTAL CUMULATIVE CREDITS				150	
				TOTAL CONTACT HOURS				26	

SEMESTER-8

Sl. No	Course Code	Title of the Course	HC/FC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
Open Elective-4 for other school students									
1	B20MEO801	Engineering Economics and Financial Management	OE		3	0	0	3	3
Practical /Term Work / Practice Sessions/Online /MOOC									
2	B20ES0801	Major Project	HC		0	0	7	7	21
				TOTAL	3	0	7	10	24
				TOTAL SEMESTER CREDITS				10	
				TOTAL CUMULATIVE CREDITS				160	
				TOTAL CONTACT HOURS				24	

Agenda-3: Review/ Ratification of Syllabus for 7th & 8th Semester B. Tech. Mechanical Engineering 2018-22 and 2019-23 Batch

1. It is bring to the notice of the BOS that up to 6th semester scheme and content has been revised in 7th and 8th BOS. At present 7th and 8th sem scheme and content with minor modification is put into further approval.
2. Mr. Raghavendra suggested to introduce Painting and Surface Finishing course as a soft core.
3. Mr. Aneesh Padmanabha highlighted the practical exposure of FEM.
4. Director bring to the kind notice that the fem practical component is introduced as Structural Analysis Lab in 7th sem.
5. Mr. Aneesh rise the view on Data Hand Book for Machine Design and Heat Transfer course must be common edition to be mentioned
6. The following changes in the curriculum is accepted by all the members

VII SEMESTER

Sl. No	Course Code	Title of the Course	Type of Course	Credit Pattern & Credit Value				Contact Hours	Teaching School
				L	T	P	Total		
1	B18ME7010	Finite Element Methods	HC	2	1	0	3	4	ME
2	B18ME7020	Control Engineering*	HC	3	0	1	4	5	ME
3	B18ME7030	Engineering Economics and Financial Management	HC	4	0	0	4	4	ME
4	**Soft Core – 7**								
	B18ME7041	Cryogenic Engineering	SC	3	0	0	3	3	ME
	B18ME7042	Tribology and Bearing Design		3	0	0	3	3	ME
	B18ME7043	Automation in Manufacturing		3	0	0	3	3	ME
	B18ME7044	Non Destructive Testing		3	0	0	3	3	ME
	B18ME7045	Safety Engineering		3	0	0	3	3	ME
5	**Soft Core – 8**								
	B18ME7051	Computational Fluid Dynamics	SC	2	1	0	3	4	ME
	B18ME7052	Mechanical Vibrations		2	1	0	3	4	ME
	B18ME7053	Operation Research		2	1	0	3	4	ME
	B18ME7054	Gas Turbines and Jet Propulsion		2	1	0	3	4	ME
	B18ME7055	Data Analytics using R-Programming		2	0	1	3	4	C&IT
6	**Open Elective**		OE	4	0	0	4	4	--

7	B18ME7070	Structural Analysis Lab	HC	0	0	2	2	3	ME
8	B18ME7080	Product Design and Concept Lab	HC	0	0	2	2	3	ME
TOTAL CREDITS & CONTACT HOURS							**25**	**30**	

Note: 1. Control Engineering Course is integrated with MAT Lab for practice session.

VIII SEMESTER

Sl. No	Course Code	Title of the Course	Type of Course	Credit Pattern & Credit Value				Contact Hours	Teaching School
				L	T	P	Total		
1	**Soft Core – 9**								
	B18ME8011	Electric Vehicles and Hybrid Vehicles	SC	3	0	0	3	3	ME
	B18ME8012	Advanced Foundry Technology		3	0	0	3	3	ME
	B18ME8013	Additive Manufacturing		3	0	0	3	3	ME
	B18ME8014	New Venture Planning and Management		3	0	0	3	3	ME
	B18ME8015	Project Management		3	0	0	3	3	ME
2	**Soft Core – 10**								
	B18ME8021	Energy Audit and Management	SC	3	0	0	3	3	ME
	B18ME8022	Advanced Machine Design		3	0	0	3	3	ME
	B18ME8023	MEMS		3	0	0	3	3	ME
	B18ME8024	Total Quality Management		3	0	0	3	3	ME
	B18ME8025	Internship		0	0	3	3	21days	--
3	B18ME8030	Project Work	HC	0	0	8	8	----	ME
4	B18ME8040	MOOC/Swayam/NPTEL *	RULO	3	0	0	3	----	---
TOTAL CREDITS & CONTACT HOURS							**17**	**06**	
TOTAL CREDITS OF I SEMESTER TO VIII SEMESTER							**192**		

1. **Student should do 21 days one internship or 15 days each 2 internship or they have to study the soft core -10**
2. **Each student has to undergo Certification Programme through MOOC or NPTEL etc.**

Minor changes in 2018 scheme 7th and 8th Semester Mechanical courses

Sl. No	Course	Changes
1	Scheme 7th and 8th sem	No
2	Computational Fluid Dynamics-7th sem, Soft Core	Unit-1 Momentum and energy in differential form& **vector form (No derivation)**
3	Gas Turbines and Jet Propulsion-7th sem, Soft Core	**Unit-2**: Numerical on pressure losses **(to be added),** Critical Design parameters of combustion chamber Materials for combustion chamber**(To be removed)** **Unit: 4** Numerical on specific thrust. **(to be added)**
4	Operation Research - 7th sem, Soft Core	**Unit-1:** To remove concept of Duality **Unit-2:** Transportation model - Determination of IBFS using different methods - Different methods to VAM Technique. (To be introduced) **Unit-3:** To remove processing of n jobs through m machines.
5	Finite Element Methods -7th Sem Hard Core	**Unit 1:** Variation approach-Rayleigh Ritz method, Weighted Residual methods, Galerkin method, simple problems **(To be removed)** Mesh Quality Parameters – Skewness, Aspect Ratio, Warpage Angle, Skewness **(To be Added)**
6	Mechanical Vibrations – 7th Sem – Soft Core	**Unit- 3:** Instruments – Vibrometer, Accelerometer, Frequency measuring instruments and Problems **(To be removed)** Vibration Measurement Scheme, Piezoelectric based Accelerometers, Stroboscope **(To be added)**
7	Electric Vehicles and Hybrid Vehicles--8th sem, Soft Core	**Change in CO3:** Explain design principles used and select proper energy storage systems for electric vehicle applications. **UNIT-II:** Architecture of Hybrid & Electric vehicle & Drivetrains**(To be changed as)** **Architecture:** The drive train configuration, Various types of Vehicle Power plants, need of gearbox in a vehicle. Basic architecture of Electric drive trains **(To be added)** power flow control in hybrid drive-train topologies, fuel efficiency analysis **(To be removed)** **UNIT-III:** Design of Hybrid and Electric vehicles & Energy Storage. **(Sub Title To be changed)** **Design of Hybrid and Electric vehicles:** Design Principles of HEVs I, HEV II, Drive cycle and its detailed analysis, sizing of electric Machine for EVs and HEVs **(to be added)** **Unit-4:** classification of different energy management

		strategies, comparison of different energy management strategies **(To be removed)**
8	**Energy Audit and Management -8th Sem, Soft Core.**	**No change in the content, only change in CO1 and CO3** 1 Explain various energy resources and its demand 2 Apply the energy audit techniques to find energy utilization
9	**Additive Manufacturing- 8th Sem, Soft Core**	**Updated Syllabus of Unit-3:** Introduction, types, 3D printing to 5D printing - principle of operation. Indirect and Direct rapid tooling - Aluminium filled epoxy tooling, Spray metal tooling, 3D Keltool, DMILS and Quick cast process.

Agenda-4. Review/ Ratification of Syllabus for 5th & 6th Semester B. Tech. Mechatronics Engineering 2019-23 Batch

1. It is bring to the notice of the BOS that up to 4th semester scheme and content has been revised in 7th and 8th BOS. At present 5th and 6th sem scheme and content with minor modification is put into further approval.
2. The following changes in the scheme and curriculum is accepted by all the members

V SEMESTER

Sl. No	Course Code	Title of the Course	Type of Course	Credit Pattern & Credit Value				Contact Hours	Teaching School
				L	T	P	Total		
1	B19MT5010	CNC Technology	HC	3	0	0	3	3	ME
2	B19MT5020	Communication Systems	HC	4	0	0	4	4	ECE
3	B19MT5030	Data Acquisition Systems	HC	4	0	0	4	4	ECE
4	B19MT5040	Robotics and Vision System	HC	4	0	4	4	4	ECE
5	Soft Core -1								
	B19MT5051	Automotive Engineering	SC	3	0	0	3	3	ME
	B19MT5052	Tribology and Bearing Design		3	0	0	3	3	ME
	B19MT5053	Theory of Metal Cutting and Machine Tools		2	0	1	3	4	ME
	B19MT5054	Material Science and Technology		2	0	1	3	4	ME
	B19MT5055	Data Structure		2	0	1	3	4	C&IT
6	Soft Core -2								
	B19MT5061	Elements of Avionics	SC	3	0	0	3	3	ECE
	B19MT5062	Python Programming		3	0	0	3	3	C&IT/ ECE
	B19MT5063	Data Communication Networking		3	0	0	3	3	ECE
	B19MT5064	Mobile Application Development		3	0	0	3	3	ECE
	B19MT5065	Sensors and Actuators		3	0	0	3	3	ECE/ME
7	B19MT5070	CNC Lab	HC	0	0	2	2	3	ME
8	B19MT5080	Data Acquisition System Lab	HC	0	0	2	2	3	ECE
9	B19MT5090	Placement Training-3	RULO	0	0	2	2	3	Placement

TOTAL CREDITS & CONTACT HOURS	27	31	
TOTAL CREDITS OF I SEMESTER TO V SEMESTER	124		

VI SEMESTER

Sl. No	Course Code	Title of the Course	Type of Course	Credit Pattern & Credit Value				Contact Hours	Teaching School
				L	T	P	Total		
1	B19MT6010	Process Automation	HC	3	0	0	3	3	ME
2	B19MT6020	Design of Machine Elements	HC	4	0	0	4	4	ME
3	B19MT6030	Digital Signal Processing	HC	3	1	0	4	5	ECE
4	Soft Core -3								
	B19MT6041	Refrigeration and Air Conditioning	SC	3	0	0	3	3	ME
	B19MT6042	Composite Materials		3	0	0	3	3	ME
	B19MT6043	Rapid Prototyping		3	0	0	3	3	ME
	B19MT6044	Nonconventional Machining Processes		3	0	0	3	3	ME
	B19MT6045	Machine Learning Using Python Programming		2	0	1	3	4	C&IT
5	Soft Core -4								
	B19MT6051	Artificial Intelligence for Mechatronics Systems	SC	3	0	0	3	3	ECE
	B19MT6052	PLC and SCADA		3	0	0	3	3	ECE
	B19MT6053	Underwater Robotics		3	0	0	3	3	ECE
	B19MT6054	Wireless Sensor Networks		3	0	0	3	3	ECE
	B19MT6055	System Modelling and Simulation		3	0	0	3	3	ECE/ME
6	Soft Core -5								
	B19MT6061	Heat Transfer	SC	2	1	0	3	4	ME
	B19MT6062	Operation Research		2	1	0	3	4	ME
	B19MT6063	Finite Element Methods		2	0	1	3	4	ME
	B19MT6064	Theory of Machines		2	1	0	3	4	ME
	B19MT6065	Machine Tool Design		2	1	0	3	4	ME
7	B19MT6070	Automation Lab	HC	0	0	2	2	3	ME
8	B19MT6080	Digital Signal Processing Lab	HC	0	0	2	2	3	ECE
9	B19MT6090	Placement Training-4	RULO	0	0	2	2	3	Placement
TOTAL CREDITS & CONTACT HOURS							26	32	
TOTAL CREDITS OF I SEMESTER TO VI SEMESTER							150		

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

VII SEMESTER

Sl. No	Course Code	Title of the Course	Type of Course	Credit Pattern & Credit Value				Contact Hours	Teaching School
				L	T	P	Total		
1	B19MT7010	Engineering Economics and Financial Management	HC	2	1	0	3	4	ME
2	B19MT7020	Control Systems	HC	3	1	0	4	5	ME/ECE
3	B19MT7030	Embedded Systems	HC	4	0	0	4	4	ECE
4	Soft Core – 6								
	B19MT7041	MEMS	SC	3	0	0	3	3	ME
	B19MT7042	Product Design and Development		3	0	0	3	3	ME
	B19MT7043	Industrial Engineering		3	0	0	3	3	ME
	B19MT7044	Non Destructive Testing Methods		3	0	0	3	3	ME
	B19MT7045	Safety Engineering		3	0	0	3	3	ME
5	Soft Core – 7								
	B19MT7051	Biomedical Signal Processing	SC	2	1	0	3	4	ECE
	B19MT7052	Real Time Operating Systems		2	1	0	3	4	ECE
	B19MT7053	Autotronics		2	1	0	3	4	ECE
	B19MT7054	Nano Technology		2	1	0	3	4	ECE
	B19MT7055	IoT and Cyber Physical Systems		2	1	0	3	4	ECE
6	B19MT7060	Robotics and Vision System	OE	4	0	0	4	4	ECE
7	B19MT7070	Embedded System Lab	HC	0	0	2	2	3	ECE
8	B19MT7080	Communication Systems Lab	HC	0	0	2	2	3	ECE
			TOTAL CREDITS & CONTACT HOURS				25	30	
			TOTAL CREDITS OF I SEMESTER TO VII SEMESTER				175		

VIII SEMESTER

Sl. No	Course Code	Title of the Course	Type of Course	Credit Pattern & Credit Value				Contact Hours	Teaching School
				L	T	P	Total		
1	Soft Core – 8								
	B19MT8011	Industrial Robotics	SC	3	0	0	3	3	ME
	B19MT8012	Hybrid-Electric Vehicles		3	0	0	3	3	ME/EEE
	B19MT8013	Safety and Security of Automotive Systems		3	0	0	3	3	ME/ECE
	B19MT8014	Power Electronics		3	0	0	3	3	ECE
	B19MT8015	Project Management		3	0	0	3	3	ME
2	B19MT8030	Project Work	HC	0	0	12	12	----	ME/ECE
3	B19MT8040	MOOC/Swayam/NPTEL/ Internship *	SC	2	0	0	2	----	---
			TOTAL CREDITS & CONTACT HOURS				17	06	
			TOTAL CREDITS OF I SEMESTER TO VIII SEMESTER				192		

*Student should do 21 days one internship or 15 days each 2 internship or they have to undergo Certification Programme through MOOC or NPTEL.

Minor changes in 2019 scheme 5th and 6th Sem Mechatronics Courses

Sl. No	Subject	Changes
1	**Robotics and Vision System-5th Sem, Hardcore course**	**Unit-4:** Analog to digital signal conversion, quantization and encoding, Image processing and analysis, image data reduction, segmentation, feature extraction, object recognition,---------- to be removed
2	**Automotive Engineering-5th Sem, Soft Core Course**	**Unit-1:** Types of combustion chambers for S.I.Engine and C.I.Engines, methods of a Swirl generation, **(To be removed)** **Unit-III:** Advantages of Types of Electronic Ignition System, Firing Order, Importance of Ignition Timing and Ignition Advance. and comparisons. **(To be removed)** Automatic Transmission System **(To Be Added)** **UNIT-IV:** Torsion bar suspension systems, Types of brakes, mechanical compressed air, vacuum and hydraulic braking systems, construction and working of master and wheel cylinder, brake shoe arrangements, **(To be removed)**
2	**Heat Transfer--6th Sem, Soft Core Course**	**Credit is changed from 2-0-1 to 2-1-0** **Unit-I:** Fins-types of fins, Discussion on governing equations for different conditions of fins (no derivation), effectiveness & efficiency of fin, Numerical.**(To be removed)** Lumped system Analysis, Use of Heisler's charts for transient conduction in plane slab, long cylinder and sphere. Numerical examples.**(To be shifted from Unit-2)** **Unit-2 and Unit-3:** Applications of dimensional analysis for free convection and forced convection.**(To be removed)** **Unit 3:** Heat Exchangers: Classification, Overall heat transfer coefficient, fouling and fouling factors, LMTD (With Derivation), Discussion on effectiveness-NTU methods (Without Derivation) of analysis of heat exchangers, Numerical. **(To Be shifted from unit 4)** Radiation Heat transfer topic **(To be Removed)** **Unit-4: Phase change convective process and Thermal management system(to be renamed)**

Agenda-5: Review/ Ratification of Syllabus for 3rd & 4th Semester M. Tech-Machine Design 2020-22 Batch.

1. It is bring to the notice of the BOS that up to first year scheme and content has been revised in 8th BOS. At present 2nd year scheme and content with minor modification is put into further approval.
2. Dr. Sudheer Reddy recommended one MOOC course is enough to match time schedule with Swayam or NPTEL platform
3. Dr. Mahesh A stressed on PG internship to get employment opportunities in R&D institutions.
4. The BOS approved the scheme and content of the 2nd year Machine Design program

M. Tech. in Machine Design
Scheme of Instructions

I SEMESTER

Sl. No	Course Code	Title of the Course	HC/SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	M20AS0103	Computational Methods in Engineering	HC	B.Tech. in Mechanical and allied branches	2	0	1	3	4
2	M20TI0101	Advanced Mechanical Vibrations	HC	B.Tech. in Mechanical and allied branches	4	0	0	4	4
3	M20TI0102	Advanced Mechanics of Materials	HC	B.Tech. in Mechanical and allied branches	2	1	0	3	3
4	M20TI0103	Computer Aided Engineering	HC	B.Tech. in Mechanical and allied branches	2	0	1	3	4
5	M20TIS111	Design of Experiments	SC-1	B.Tech. in Mechanical and allied branches	3	0	1	4	5
	M20TIS112	Synthesis and Analysis of Mechanisms			3	0	1	4	5
TOTAL					**13**	**1**	**3**	**17**	**20**
Practical /Term Work / Practice Sessions/Online /MOOC									
6	M20TI0104	Design Thinking	HC	B.Tech. in Mechanical and allied branches	2	0	1	3	4
TOTAL					**2**	**0**	**1**	**3**	**4**
TOTAL SEMESTER CREDITS									**20**
TOTAL CUMULATIVE CREDITS									**20**
TOTAL CONTACT HOURS									**24**

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

II SEMESTER

Sl. No	Course Code	Title of the Course	HC/SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
1	M20TI0201	Advanced Engineering Materials	HC	-	2	0	1	3	4
2	M20TI0202	Advanced Finite Element Methods	HC	M20TI0101 M20AS0103	3	0	1	4	5
3	M20TI0203	Design for Manufacture, Assembly and Environment	HC	-	4	0	0	4	4
4	M20TI0204	Project Management	HC	-	2	0	1	3	4
5	M20TIS211	Mechatronics Product Design	SC-2	M20TI0101	2	0	1	3	4
	M20TIS212	Vehicle Dynamics							
6	M20TIS221	Additive Manufacturing	SC-3	-	3	0	0	3	3
	M20TIS222	Computational Fluid Dynamics							
	M20TIS223	Robotics and its Applications							
				TOTAL	**16**	**0**	**4**	**20**	**24**
				TOTAL SEMESTER CREDITS				**20**	
				TOTAL CUMULATIVE CREDITS				**40**	
				TOTAL CONTACT HOURS				**24**	

III SEMESTER

Sl. No	Course Code	Title of the Course	HC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
	Practical /Term Work / Practice Sessions/Online /MOOC								
1	M20TI0301	Industrial Internship	HC	-	0	0	8	8	16
2	M20TI0302	Project Dissertation Phase-I	HC	-	0	0	4	4	8
3	M20TIO301	MOOC/SWAYAM Online Course of Interdisciplinary Nature	OE	-	4	0	0	4	4
				TOTAL	**4**	**0**	**12**	**16**	**28**
				TOTAL SEMESTER CREDITS				**16**	
				TOTAL CUMULATIVE CREDITS				**56**	

* List of online courses will be provided to students depending on availability of courses during their 3rd semester.

Career Guidance Centre along with School is putting good efforts to ensure that all M.Tech. Students to undergo Paid Internships during their 3rd Sem that leads to Placements. In order to give more weightage to Internship, more credits being allotted.

IV SEMESTER

Sl. No	Course Code	Title of the Course	HC/ SC/ OE	Pre requisite	Credit Pattern & Credit Value				Contact Hours/ Week
					L	T	P	Total	
	Practical /Term Work / Practice Sessions/Online /MOOC								
1	M20TI0401	Master Thesis	HC	-	0	0	16	16	32
				TOTAL	0	0	16	16	32
					TOTAL SEMESTER CREDITS			16	
					TOTAL CUMULATIVE CREDITS			72	
					TOTAL CONTACT HOURS			32	

Agenda-6: Approval of Minors and Honors for B.Tech Programs 2020-21 admitted batch.

Minor and Honors Degree

Among several academic changes implemented by the REVA University from the academic year 2020-21, introducing Minor and Honors Degree in Engineering is the most exciting and interesting. The minor degree in any specialization will provide an opportunity to the students to undergo additional 18 credits and in job related courses. Similarly, in the Honors degree, the students will take advanced courses in their branch of study.

Eligibility:

Minor Degree

Students enrolled in any four-year undergraduate program in REVA University are eligible to undertake Minor Degree as given in the list and they should complete the requisite courses if any. Also, they should have a minimum of 7.5 CGPA, till 4th semester and should not have any arrears/backlogs in the previous semesters (till 4th semester). The students who wish to do a minor degree in any specialization must have cleared all the courses in the first attempt till 4th semester in their program of study.

Honors Degree

Students enrolled in any four-year undergraduate program in REVA University are eligible to undertake Honors Degree as given in the list and they should complete the requisite courses before enrolling for honors degree. Also, they should have a minimum of 7.5 CGPA, till 4th semester and should not have any arrears in the previous semesters (till 4th semester). The students who wish to do Honors degree in any specialization must have cleared all the courses in the first attempt till 4th semester in their program of study.

1. Director proposed the major courses for mechanical engineering and mechatronics students and minor courses for students from other schools.(Highlighted in the below table)
2. All members welcomed the initiation of major and minor courses which are useful to the students to get knowledge on diversify field and enhance the employment opportunity.
3. Dr.Vidyasagr H N suggested to put minimum strength for minor and major courses.
4. Dr.Mahesh A suggested to include Artificial Intelligence and IOT courses specifically for mechanical engineering students as a minor courses in future.

REVA UNIVERSITY SCHOOL OF MECHANICAL ENGG.

MINOR AND HONORS DEGREE (UG PROGRAM)

Name of the School	Minor Degree	Eligibility	Honors Degree	Eligibility
School of Computing and Information Technology	CSE (AI &ML)	EEE, CE, **ME, MECHATRONICS,** BIOELECTRONICS	Cyber Security	CSE, ECE, ECM, EECE
School of Computer Science and Engineering	CSE	EEE, CE, **ME, MECHATRONICS,** BIOELECTRONICS	Data Science Internet of Things	
School of Mechanical Engineering	**Manufacturing Engineering**	**CE, EEE, ECE, CSE, BIOELECTRONICS ECM, EECE**	**Advanced Manufacturing Technology**	**ME, MECHATRONICS, Robotics & Automation**
School of Civil Engineering	Construction Technology	EEE, ECE, **ME,** CSE, ECM, EECE, BIOELECTRONICS	Disaster Management / Green Technology and Sustainable Engineering	CE
School of Electrical and Electronics Engineering	Energy Engineering / Energy Technology	CE, ECE, CSE, ECM, BIOELECTRONICS	Electric Vehicle Technology	EEE, **ME,** ECE, **MECHATRONICS,** EECE, RA
School of Electronics and Communication Engineering	Robotics	EEE, CSE, CE, **ME,** CIT	Microelectronics	ECE, ECM, RA, **MECHATRONICS,** EECE, BIOELECTRONICS

Minor Degree in Management (All branches are eligible)

1. Organisation Behavior
2. Introduction to Business Analytics
3. Marketing Management
4. Human Resource Management
5. Leadership Management
6. Introduction to Financial Management

Students of B. Tech in Mechanical Engineering can obtain the following Minor and Honors degree as per the eligibility.

Minor Degree

1. Computer Science
2. Computer Science with AI and ML
3. Construction Technology
4. Robotics

Honours Degree

1. Advanced Manufacturing Technology

Students of B. Tech in Mechatronics Engineering can obtain the following Minor and Honors degree as per the eligibility.

Minor Degree

1. Computer Science
2. Computer Science with AI and ML

Honors Degree

1. Advanced Manufacturing Technology
2. Electric Vehicle Technology
3. Microelectronics

Course Structure for Minor Degree and Honors Degree

1. Minor Degree (For Other school students): Manufacturing Science

Sl. No	Title of the Course	HC	Credit Pattern & Credit Value				Contact Hours/ Week
			L	T	P	Total	
1	Manufacturing Science	HC	3	0	0	3	3
2	Statistical Quality Control	HC	3	0	0	3	3
3	Additive Manufacturing and 3D Printing	HC	3	0	0	3	3
4	Production and Operations Management	HC	3	0	0	3	3
5	Automation in Manufacturing	HC	3	0	0	3	3
6	Total Quality Management and Six Sigma	HC	3	0	0	3	3

2. Honors Degree: Advanced Manufacturing Technology

Sl. No	Title of the Course	HC	Credit Pattern & Credit Value				Contact Hours/ Week
			L	T	P	Total	
1	Manufacturing Science	HC	3	0	0	3	3
2	Advanced Materials	HC	3	0	0	3	3
3	Digital Manufacturing	HC	3	0	0	3	3
4	Operations and Quality Management	HC	3	0	0	3	3
5	Supply Chain Management	HC	3	0	0	3	3
6	Mechanical Geometric Dimensioning and Tolerancing	HC	3	0	0	3	3

Agenda 7: Approval of panel for BoE and list of examiners Board of Examiners for UG Program in Mechanical and Mechatronics Engineering 2020-21

Sl. No.	Name, Designation & Affiliation	Status	E-Mail & Phone Number
1	**Dr. K S Narayanaswamy** Director, School of ME, REVA University	**Chair Person**	dir.me@reva.edu.in **Mobile: 9902679446**
2	**Dr. K M Mrutanjayaswamy** Professor, Dayanandasagar University	**External Observer**	mrutuyanjayaswamykm@rediffmail.com **Mob : 9448013081**
3	**Dr L H Manjunath** Professor, School of ME,REVA University	**Member (Internal)**	manjunath.lh@reva.edu.in **Mob:9844318146**
4	**Dr N.Jagadeeswaran** Professor, School of ME,REVA University	**Member (Internal)**	njagadeeswaran@reva.edu.in **Mob:9880231308**
5	**Dr C D Hampali** Professor, School of ME,REVA University	**Member (Internal)**	hampali@reva.edu.in **Mob:9845234050**
6	**Prof L R Jagadeesh** Associate Professor, School of ME,REVA University	**Member (Internal)**	Jagadeesh.lr@reva.edu.in **Mob:9844074156**
7	**Dr.Mahesh L** Associate Professor, School of ME,REVA University	**Member (Internal)**	maheshl@reva.edu.in **Mob:9964272378**
8	**Dr.Niranjan Hiremath** Associate Professor, School of ME,REVA University	**Member (Internal)**	niranjanh@reva.edu.in **Mob:9916699736**
9	**Dr.Veerabhadrappa T** Asst Professor, School of ME,REVA University	**Member (Internal)**	veerbhadrappa@reva.edu.in **Mob:9685666114**
10	**Dr.Shanwaz Patil** Asst Professor, School of ME,REVA University	**Member (Internal)**	Sahwanz.patil@reva.edu.in **Mob:8197507473**
11	**Dr.Vijeekumar** Asst Professor, School of ME,REVA University	**Member (Internal)**	vijeekumar@reva.edu.in **Mob:9902325016**
12	**Prof. Varun Kumar Reddy** Asst Professor, School of ME,REVA University	**Member (Internal)**	varunkumarressy@reva.edu.in **Mob:8217344951**
13	**Dr.Raju B S** Professor, School of ME,REVA University	**Member & Coordinator(Internal)**	raju.bs@reva.edu.in **Mob:9880655105**

Board of Examiners for PG Program (Machine Design) in Mechanical Engineering 2020-21

Sl. No.	Name, Designation & Affiliation	Status	E-Mail & Phone Numb
1	**Dr. K S Narayanaswamy** **Director, School of ME**	**Chair Person**	**dir/me@reva.edu.in**
2	**Dr L H Manjunath** Professor, School of ME,REVA University	**Member (Internal)**	manjunath.lh@reva.edu.in **Mob:9844318146**
3	**Dr.Niranjan Hiremath** Associate Professor, School of ME,REVA University	**Member (Internal)**	niranjanh@reva.edu.in **Mob:9916699736**

Agenda-8: Approval of Academic Calendar, Lesson plan format, Scheduling of online classes and online Practical session delivery

School of Mechanical Engineering
ODD SEM-I year B.Tech/PG/Lateral Entry- 2020 Batch
Calendar of Events (DEC 2020-MAY 2021)
Schedule of Tests/ Semester End Examinations for B.Tech-ME/MECT

Program	UG/PG	Date of Commencement	IA1	Results	IA2	Results	Last Working Date	Practical Preparations	SEE Examination	Commencement of Even Semester
B.Tech	UG	16 Dec2020	25/2/2021 to 28/2/2021	1/3/2021	5/4/2021 to 7/4/2021	10/4/2021	4/4/2021	8/4/2021 to 12/4/2021	12/5/2021 to 21/5/2021	24/5/2021
M.Tech	PG	11 Jan2021	22/2/2021 to 24/2/2021	27/2/2021	22/3/2021 to 24/3/2021	27/3/2021	27/3/2021	29/3/2021 To 31/3/2021	1/4/2021 to 12/4/2021	15/4/2021
B.Tech	UG (lateral Entry)	11 Jan2021	22/2/2021 to 24/2/2021	27/2/2021	22/3/2021 to 24/3/2021	27/3/2021	27/3/2021	29/3/2021 To 31/3/2021	1/4/2021 to 12/4/2021	15/4/2021

(Due to Pandemic Situation and Lockdown Guidelines of Govt. of Karnataka the Online SEE examination for I semester Students of 2020-24 batch has been Scheduled online by COE of REVA University.)

9th Board of Studies Meeting held on 05.06.2021 in Virtual Mode (MS Teams platform), School of Mechanical Engineering, REVA University, Bangalore at 2:00 PM

School of Mechanical Engineering
EIGHT SEM- B.Tech - 2017 Batch
Calendar of Events (DEC 2020-MAY 2021)
Schedule of Tests/ Semester End Examinations for B.Tech-ME

Program	UG/ PG	Date of Commencement	IA1	Results	IA2	Results	Last Working Date	Practical Preparations	SEE Examination
B.Tech	UG	25/2/2021	6/4/2021 to 9/4/2021		6/5/2021 to 10/5/2021	13/5/2021			June End (Tentative)

(Due to Pandemic Situation and Lockdown Guidelines of Govt. of Karnataka the Online classes for 8 semester Students have been scheduled by School. Tentative dates for SEE Examination are shown, Depending on the Covid -19 situations the dates will be scheduled)

School of Mechanical Engineering
IV/ VI SEM- B.Tech – 2018, 2019 Batch
Calendar of Events (FEB 2021-JUNE 2021)
Schedule of Tests/ Semester End Examinations for B.Tech-ME/MECT

Program	UG /PG	Date of Commencement	IA1	Results	IA2	Results	Last Working Date	Practical Preparations	SEE Examination	Commencement of ODD Semester
B.Tech	UG	25/2/2021	6/5/2021 to 10/5/2021		June 2nd week (Tentative)				June End (Tentative)	

(Due to Pandemic Situation and Lockdown Guidelines of Govt. of Karnataka the Online classes for 4 and 6 semester Students have been Scheduled by School, Tentative dates for tests and SEE Examination are shown , Depending on the Covid -19 situations the dates will be scheduled)

1. Dr. Narayanaswamy BOS chairperson presented panel of examiners and BOE members for the approval for smooth functioning of exam activities
2. Also presented the calendar of events and mode of classes conducted during pandemic period. Classes conducted in OFF line and On Line mode through virtual plat form Microsoft Team.
3. Exams will be conducted on line mode for 50 marks.
4. Along with University, academic activities of the school conducted as per guide lines of UGC and Government of Karnataka issued time to time.
5. Members are happy about the activities conducted.

Agenda-9: Approval of Research Activities: Publications, Patents and Consultancy.

To promote research activities among Students and faculty, School has established Centre of Excellence and Research centers. The outcomes of these labs are:

1. Publications
2. Patents
3. Consultancy
4. Product development.

Each faculty along with student group are encouraged to publish their research work in reputed journals and conferences. The research audit will be done by R&I to award best researcher considering Contribution towards Publications, patents, Consultancy, Product Development.

1. Dr. K S Narayanswamy informed to the members about the research activities in the school.
2. Over 200 papers will be published and over 40 patents will be applied
3. Over Rs 2 crores project proposal is submitted to various agencies of state and central government in the field of materials, Vibrations and Bio fuels.
4. Over 2 Crore rupees project fund is received by the school R&D centre from VGST and DST-SERB.
5. All the faculties are motivated to publish 3+ papers and try to get minimum one patent

Agenda-10: Approval of bi-annual progress presentations of research scholars of 2015-16 to 2020-21 batches.

1. Dr. K S Narayanaswamy brings to notice of the members about Ph.D program in the school.
2. School is having 22 PhD qualified faculty who are eligible to guide the research scholars
3. School having separate R&D lab to facilitate research in the field of Materials, Vibrations and Bio fuels.
4. Interested candidates can apply for PhD and they have to pass entrance test and undergo work course specified by the university.
5. The research Scholars are expected to submit the Bi-annual progress report by 10th April. The presentation is scheduled in the last week of June 2021.
6. BOS members approved the format of Interim report and process followed by the school about progress of the research scholars.

Agenda-11: Approval of measures taken to enhance the academic performance of slow and average learners.

Agenda-12: Approval of measures taken to encourage research culture and start-up culture among students

Agenda-13: Approval of measures taken to enhance placement activities for final year students

1. Dr. K S Narayanswamy brings to notice of the members about action taken on slow learners, research culture in students and placement activities.

2. 25-30 students are assigned to mentor who keeps track of their attendance and performance , the same will be informed to Director of school if special counselling is required
3. After Internal assessment mentors/course teacher will identify the poor performers and remedial classes will be conducted.
4. Mentor will track the performance of these students weekly basis.
5. To promote research culture in students, advice to take recent topic for final year project and encouraged to publish paper in national conference which will be organized by the school in the month of May/June every year.
6. Students are encouraged to apply for patent for their innovation and school will support for applying.
7. From 3rd sem to 6th sem placement training will be conducted by reputed trainer as per the time table.
8. In 2018 scheme many software courses are introduced to enhance the placement opportunities
9. Minimum 10 invited talks by industry experts and 2 skill development programs are conducting every year to expose the students to industry activities and recent advances in the field of mechanical engineering.

Agenda-14: Approval of online IA and SEE Marks distribution and Examination pattern for 2020-21 and 2021-22 and Result Analysis of Odd Semester End Examination- 2020-21.

Dr. K S Narayanaswamy Director proposed the following points related to assessment mode during lock down period and result analysis

1. Two internal assessment will be conducted on 6th week and 12th week of the semester
2. Each assessment will be conducted in two mode such as descriptive type (15marks) through on line and Viva (15 marks). The average of two marks will be considered as final marks of particular IA.
3. Two assignments carry 10 marks and quiz carries 10 marks. The total internal marks will be 50 marks.
4. SEE exam will be conducted for 50 marks with new pattern through on line plat form.
5. Odd sem result is bring to the notice of the members, it is observed that 3rd sem and 5th sem result is poor.
6. Director assured to improve the result by conducting special classes for failed candidates.

Agenda-15: Approval of UG/PG project progress presentations and evaluations through online

Agenda-16: Approval of change in time table and number of hours for effective delivery through online

1. Project evaluation is done in 3 phases first two phases evaluated for 25 marks each and final evaluation is done for 50 marks.
2. Presentation has been done through Microsoft on line plat form. SEE time table has been made, for each batch 30 minutes slot is provided for presentation and two examiners including guide evaluate the project work.

3. Director presented time table for on lie classes after the lock down announced by state government.

Agenda-17: Approval of other academic activities: FDPs, SDPs, Skill development Programmes, Conferences, Seminars, Expert talks, Industrial visits, Project exhibitions, Technical Club activities, outreach activities ,NSS and NCC.

Director highlighted the school academic activities, co-curricular and extracurricular activities for the enhancement of knowledge, skill of students and faculty.

1. School is conducting minimum 2 FDP per year and 6 skill development activities for students in recent areas.
2. Minimum 10 experts' talks are arranged for students from industry experts to minimize the gap between industry and academia.
3. One national conference and one international conference are organizing to promote research culture in students and faculty.
4. School is having 9 clubs and chapters through which expert talks, quiz program, competitions, internship and employment opportunity will be created.
5. School adopted Bhattara Marenahalli Govt School to develop as per the new initiative of Govt of Karnataka.
6. Through outreach and NSS many social activities are conducted such as blood donation camp Swachha Abhiyan, health awareness program.
7. Members appreciate the initiation taken by the school for social service, club activities and school adoption.
8. Mr. Mahesh A suggested special training program for enhancing teaching skills for faculty.
9. Mr. Raghvendra suggested to introduce any course related to agriculture.
10. Dr. Bhagavanalu Dean IQAC highlighted the university action points on identifying the interest of the students and give training on 4 fields like Entrepreneurship, Agriculture, Politics and Administration (IAS/IPS).

At the end Chairperson of BOS meeting accepted to revise the scheme and syllabus as per the suggestion made by BOS members and implement in this academic year. He also expressed heartfelt thanks to all BOS members for valuable suggestion and their kind presence through virtual session.

The meeting ended with vote of thanks by Dr. Mahesh L Assistant Director

17/06/2021

Dr. Mahesh L

17/06/21

Dr. K S Narayanaswamy
Director
School of Mechanical Engineering
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru - 560 064

REVA UNIVERSITY ★ SCHOOL OF MECHANICAL ENGG ★

REVA University
School Of Mechanical Engineering
Scheme of Evaluation
Computer Aided Engineering Drawing (B20ME0101)

Q	Title	Max marks	Manual Drawing	Computerization	Manual drawing Marks distribution	Computerization drawing Marks distribution
1.a	Projection of points	10	4	6	XY Line -1 M Front View-1M Top View and Profile View -2M	XY Line -1 M Front View-2M Top View and Profile View - 3M
1.b	Projection of Lines	15	6	9	XY Line - 1M Front View-3M Top View -2M	XY Line –1 M Front View-4M Top View –4M
2.a	Projection of points	10	4	6	XY Line -1 M Front View-1M Top View and Profile View -2M	XY Line -1 M Front View-2M Top View and Profile View -3M
2.b	Projection of Planes	15	6	9	XY Line -1 M First Position-1.5M Second Position-1.5M Third Position-2M	XY Line-1 M First Position-2M Second Position-2M Third Position-4M
3.	Projection of Prism	25	10	15	XY Line -1 M First position-3M Second position-2M Third position-4M	XY Line -1 M First position-4M Second position-4M Third position-6M
4.	Projection of Pyramids	25	10	15		
5.	Development of lateral surfaces	25	25	Nil	XY line -1 M Front View-7M Top View-8M Development or True sectional vew-9M	NIL
6.	Section of solids	25	25	Nil		
7	Isometric Projections	25	25	Nil	First solid-12M Second solid-13M	Nil
8.	Isometric Projections	25	25	Nil		

Director/ME

Director
School of Mechanical Engineering
REVA University
Rukmini Knowledge Park, Kattigena
Yelahanka, Bengaluru - 560 064

25/03/2021

REVA University
School Of Mechanical Engineering
Minutes of meeting

1. Assistant director Dr Mahesh L sir welcomed all the faculty member who are engaging CAED for CSIT, CSE, MECHANICAL Engineering and Mechatronics Engineering.
2. Computer aided engineering drawing semester end examination scheme and question paper has been discussed and following points as been concluded.
   - All faculty members expressed to conduct Unit 1 and Unit 2, both manual drawing and computerization. Hence it is decided to conduct unit 1 and unit 2 of CAED both manual and computerization.
   - Unit 3 and Unit 4 of CAED is only manual drawing no computerization is required

3. Since there were no further queries hence the meeting was concluded with the permission of Assistant Director sir.

faculties

1) KKM
2) Avi -
3) SPS -
4) LNS -
5) M.G. -
6) SPB -
7) MGK -
8) CB -
9) GST
10) D.M
11) ABK
12) A.K.R
13) STR

31/3/21

Director/MF

Director
School of Mechanical Engineering
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru - 560 064

REVA UNIVERSITY

SCHOOL OF MECHANICAL ENGINEERING

Action Taken Report: 9th BOS 01.07.2021

As per the recommendation of 9th BOS(UG/PG/PhD) committee, the following action has been taken.

1. The scheme and syllabus approved by the members of UG Mechanical/UG mechatronics/PG and PhD programs have been updated in the syllabus/hand book of 2021-22 academic year and same is presented in the academic council.

2. The following suggestions proposed by BOS members has been incorporated and updated in syllabus/hand book of academic year 2021-22 for 2020-24 batch of B.Tech Mechanical Engineering and B.Tech Mechatronics Engineering.
   a. 3rd Sem Mechanics of Solids course title is renamed as Mechanics of Materials
   b. 4th Sem Machining Science course title is renamed as Machining Process
   c. 5th Sem Internal Combustion course title is renamed as Thermal Engineering systems
   d. In 4th Sem Manufacturing science course Unit 4 topic title is changed as non-conventional methods of manufacturing
   e. In 4th sem Kinematics and Dynamics of Machine course balancing of reciprocating masses, discussion on porter governor and speed synchronizer topics are introduced
   f. In 4th sem B.Tech Mechatronics Engineering, Ardino and Rasberry microcontrollers topic is introduced in Unit 4 of Microcontrollers and Applications course.
   g. Smart passive sensors topic is introduced in Unit 1 of Sensors and Actuators course In 4th sem B.Tech Mechatronics Engineering.

3. The changes recommended by BOS (MOM of Agenda 3) has been incorporated in the course content of 2018-22 scheme B.Tech Mechanical Engineering and updated in the syllabus/hand book of 2021-22 academic year.

4. The changes recommended by BOS (MOM of Agenda 4) has been incorporated in the course content of 2019-23 scheme B.Tech Mechatronics Engineering and updated in the syllabus/hand book of 2021-22 academic year.

5. As per the recommendation of the Committee only one MOOC course in 2nd year M.Tech is introduced as Open Elective and Soft Core-4 (MOOC Course) credit is adjusted to internship to give weightage for research exposure.

6. Kannada course for kannadiga's and non kannadiga's recommended by University is introduced in 2nd year B.Tech Program.

7. The following foundation courses recommended by University are proposed in 3rd and 4th semester and curriculum is incorporated in the syllabus/hand book of concerned program

   a. Communication skills
   b. Indian constitution and Professional Ethics
   c. Universal Human Values
   d. Management Science
   e. Environmental Science

10/7/2021
Dr. Mahesh L
Asst Director/BOS Member

10/7/21
Prof L R Jagadeesh
Coordinator/BOS Member

10/7/21
Dr. K S Narayanaswamy
Chair Person-BOS and Director

Director
School of Mechanical Engineering
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru - 560 064

REVA UNIVERSITY
Bengaluru, India

SCHOOL OF MANAGEMENT STUDIES

Proceedings of the Board of Studies (BOS) Meeting held on 29th May 2021 at 2 pm , Virtually using M S Teams

Agenda:

1. Presentation of course matrix of UG and PG.
2. Approval of Course work curriculum for Ph.D.
3. Regarding Specializations for UG and PG
4. Regarding New Coding Pattern – Course Codes
5. Open electives for UG and PG.- Courses and Credit – UG and PG
6. Any other matter with permission of chair.

MEMBERS PRESENT

1.	Dr.M Dhanamjaya	**Vice - Chancellor**
2.	Dr. Shubha A	Chairperson
3.	Dr.M Subramanyam	Member
4.	Dr. P.Narayana Reddy	External Member
5.	Dr.Ramana Gujaral	External Member
6.	Dr.Divakar Naidu B	Member
7.	Dr.S.K.Prasad	Member
8.	Dr.M Lokanadha Reddy	Member
9.	Dr.Anshu rani	Member
10.	Dr.Nitu Ghosh	Member
11.	Dr Subhashree Kar	Member

Proceedings:

At the outset Dr.Shubha A, Director, School of Commerce and Management Studies, REVA University welcomed the members of BOS for the deliberations. She highlighted information related to curriculum design to the members with the brief up regarding the process of continuously updating the curriculum as per the industry requirements.

The BOS members were highlighted about the expectations of REVA University with respect to Curriculum designing. The curriculum discussed and designed should emphasize on lifelong learning with adoption of technology. It should also include life skills, self-learning, Social and Ethical component which are introduced as non-audit courses. The curriculum so designed should provide include more skill oriented courses, which will enable students to become more employable or start a Business enterprise of their own, She also discussed about the initiatives taken by the University regarding grooming the students with all industrial requirements and by imparting employability skills in the due course of their stay.

Dr.M Dhanamjaya, Vice-Chancellor, REVA University mentioned about how industry Oriented the syllabus of all programs are and also mentioned about the progressive phase of REVA University.

The detailed discussions were held as per the agenda points:

Agenda No. 1 ***Presentation of course matrix of BBA (II), BBA (H) and MBA***

***a) Presentation of course matrix of BBA (II)*:** The discussion began with BBA syllabus. The following issues were discussed

(Annexure-I)

Resolution: The members of the BOS discussed in detail about syllabus for BBA (II) Program. The members deliberated on Structure and Syllabus of BBA (II) and checked the contents of specialization courses offered noticed that there are no modifications needed, hence the syllabus was approved as it is without modifications.

Members approved the credit structure of BBA – Industry Integrated-120 credits, Inclusive of language courses up to fourth semester and also non-audit courses. The Board members appreciated the number of credits and mentioned that the courses are well chosen.

b) Presentation of course matrix of B.BA (H): **(Annexure-II)**

Resolution: The members of the BOS discussed in detail about syllabus for BBA (H) Program. The members are deliberated on Structure and Syllabus of BBA (H) with DUAL SPECIALIZATION being introduced at Undergraduate level like

✓ Talent Management and Marketing

✓ Finance and Banking

✓Strategy and Leadership '

✓ New Venture Planning and Family Business Management

✓Business analytics and design thinking

✓ Branding and Advertisement

✓ Hospital and Healthcare Management

Members approved the changes of credit structure (BBA-H-152 credits), Inclusive of language courses up to fourth semester and also non-audit courses. The Board members appreciated the number of credits and mentioned that the courses are well chosen.

(c) Presentation of course matrix of BBA (Entrepreneurship):

The members of the B08 discussed in detail about syllabus for BBA (Entrepreneurship) Program. The members deliberated on Syllabus of BBA (Entrepreneurship), noticed that there are no' modifications needed, hence the syllabus was approved as it is without modifications for 2019 and 2020 batches .Since for 2021 batch the specialization New venture planning and FBM is introduced in Honors therefore a separate BBA — E program will NOT be offered

(d) Presentation of course matrix of MBA ***(Annexure-III)***

Resolution: Members discussed and deliberated in length about the MBA curriculum and appreciated DUAL SPECIALIZATION being offered in emerging domains , where students can select two specializations and in each of the selected domains they will be provided with THREE courses each (Total SIX elective courses in 3rd Semester) and THREE courses each (Total SIX elective courses in 4th semester).The present curriculum also includes one Skill development course for every semester, which will enable the students to get Jobs/Start Business as a non—audit courses.

As per the AICTE Norms 102 credits should be there for MBA program, accordingly syllabus has been structured and noticed that there are no modifications needed, hence the syllabus was approved as it is without modifications. The Board members appreciated the number of credits and mentioned that the courses are well chosen.

Changes in the nomenclature and syllabus were recommended in the following courses which was reviewed by the BOS and approved

- ✓ Product and Brand Management – Was changed to Strategic Brand Management – Specialization course of Marketing specialization (Syllabus is attached)
- ✓ HR tools and Analytics – HR specialization course – 4 semester MBA – Content has been revised

Agenda No. 2 ***Approval of Course work curriculum for Ph.D. – 2021 batch*** **(Annexure-IV)**

Resolution: After thorough discussion the members, approved the course work syllabus for Advanced Research Methodology and Ethics in Research and Publication Courses for EIGTH batch Ph.D. scholars of Management studies

The BOS members highlighted the importance of Course work and suggested that Operational concepts to be stressed upon by the research guide to ensure that the student understands the area of research in detail. It was stressed that more focus should be laid upon the research area by laying importance on macro aspects. The members felt that there is no need of any change in the proposed syllabus for the EIGTH batch of PhD Scholars.

Agenda No. 3: ***Regarding Specializations offered for UG and PG***

Resolution: After thorough discussions and deliberations the specialization streams to be offered was decided for the following programs offered by School of Management Studies

BBA – Industry Integrated Program

Specialization to be offered

- ✓ Finance
- ✓ HR

- ✓ Marketing

The above mentioned specializations will be opted by students who are pursuing BBA – Industry Integrated Program and specialization courses will be introduced in 4th and 5th Semester Respectively, Students opting for BBA – Industry Integrated Program will be entitled only for single specialization and in the specialization stream opted TWO courses will be offered in 4th Semester and TWO courses will be offered in 5th semester carrying 3 Credits each

BBA – Honors Program

Specialization to be offered

- ✓ Talent Management and Marketing
- ✓ Banking and Finance
- ✓ Strategy and Leadership
- ✓ New Venture Planning and Family Business Management

The above mentioned specializations will be opted by students who are pursuing BBA – Honors Program and specialization courses will be introduced in 4th and 5th Semester Respectively, Students opting for BBA–Honors Program will be entitled for DUAL specialization and in the specialization stream opted FOUR (two courses in each of the stream) courses will be offered in 4th Semester and FOUR (two courses in each of the stream) courses will be offered in 5th semester carrying 3 Credits each

MBA Program

Specialization to be offered – Combination of any TWO specialization

- ✓ Finance
- ✓ HR
- ✓ Marketing
- ✓ International Business
- ✓ Operations Research
- ✓ Innovation and Entrepreneurship

- ✓ Strategy and Leadership

The above mentioned specializations will be opted by students who are pursuing MBA - Program and specialization courses will be introduced in 3rd and 4th Semester Respectively, Students opting for MBA –Program will be entitled for DUAL specialization and in the specialization stream opted THREE courses (in each of the stream opted) will be offered in 3rd Semester and THREE courses (in each of the stream opted) will be offered in 4th semester carrying 3 Credits each.

Agenda No.4: ***Introduction of New Coding Pattern – Course Codes***

Resolution: As per the decision taken by the University the Coding pattern was newly adopted reflecting the School, Program, year and so on giving more clarity and meaning for the coding pattern

Agenda No. 5: ***Open electives for UG and PG.***

Resolution: After through discussion, the members present approved the open elective subjects. I.e. Introduction to Management for Post graduate students and Career Planning and Development and Ethical Values for Business for UG.

Agenda No. 6: ***Any other matter with the permission of the Chair***

Resolution: To ensure smooth and successful delivery of all courses was stressed upon. It was suggested that the online certification courses be industry oriented and should add value to the program. The calendar of events for the Semesters I , III and V of BBA/ BBA(H) /BBA (E) and I, III MBA was approved.

BOS members appreciated REVA University for switching over from offline to online teaching during this pandemic situation and conducting online exams and announcing the results on time.

The meeting ended with vote of thanks by Dr.Shubha A, Director, School of Commerce and Management Studies,

Chairperson
Dr Shubha A
Professor and Director
Faculty of Commerce and Management Studies
REVA University, Bangalore

Director
School of Management Studies
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru- 560 0

REVA UNIVERSITY
Bengaluru, India

SCHOOL OF MANAGEMENT STUDIES

BOARD OF STUDIES

Proceedings of the Board of Studies (BOS) Meeting was conducted virtually using MS teams On 29th May 2021 at 2 pm

Members Presnt:

Sl. No	Name of the Member	Designation	Signature
1.	Dr. M. Dhanamjaya Vice Chancellor REVA University registrar@reva.edu.in +91-80-66226622	Vice Chancellor	Virtually attended
2.	Prof. Shubha A Director School of Commerce and Management, REVA University 8095491949 dir.comm@reva.edu.in/ shubha@revainstitution.org	Chair-Person	Virtually attended
3.	Dr.M.Subramanyam Associate professor School of Management Studies , REVA University drmutyala@reva.edu.in 9632390819	Member	Virtually attended
4.	Prof. Narayana Reddy Group Director, Sanskrithi Group of Institutions, Puttaparthi, Anantapur, Andhra Pradesh. 515134. Cell: 73493 37819, 9440117409. Email: groupdirector@sseptp.org profpnr@yahoo.co.in 9440114709	External Member	Virtually attended
5.	Prof.Tyaga Raju Dean, Department of Management Rani Chennamma University 9448697046 thyagaraj1121@gmail.com	External Member	Virtually attended
6.	Dr. Ramana Gujral Professor & Regional Director,	External Member	Virtually attended

	EDII, 5th Block, Rajaji Nagar, Bengaluru-560010, KA South – Bengaluru Region.		
7.	Dr.Divakar Naidu B Associate professor School of Management Studies , REVA University divakar.naidu@reva.edu.in 9448011758	Member	Virtually attended
8.	Dr. S K Prasad Professor School of Management, REVA University skprasad@reva.edu.in 9739731827	Member	Virtually attended
9.	Dr Subhashree Kar Professor School of Management Studies REVA University subhasree.kar@reva.edu.in	Member	Virtually attended
10.	Dr.Nitu Ghosh Assistant Professor School of Management Studies nitughosh@reva.edu.in 9845108905	Member	Virtually attended

Dr. Shubha A

Director

School of Management Studies

School of Management Studies
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru- 560 064

Course Title : STRATEGIC BRAND MANAGEMENT

Course Code: M20MB3260

Course Description: The course aims to help students gather knowledge and develop skills to be able to effectively engage in the field of sales and marketing with the appropriate use of product brand management concepts.

Course Objectives: The objective of this course is to:

1. Understand the concepts related to brand product management
2. Understand the concepts of customer analysis and brand development.
3. Understand the concepts of brands and various elements of branding.
4. Discuss about the brands in different sectors and expose them to the concept of brand imitation.

Course Outcomes: On successful completion of this course students shall be able to:

CO1: Analyze the product planning process and the various factors impacting changes in brand management.

CO2: Analyze the stages of brand development and reasons for failure of new brands.

CO3: Articulate the elements of branding and the importance and significance of brand equity.

CO4: Identify brand extension and branding strategies in different sectors.

Course Pre-requisites: Basic understanding about Branding and Marketing Management

Pedagogy: Direct Method, ICT, Case study

LTP: 2:1:0

Course type: SC

Contact Hours: 39

Units	Detailed Syllabus	Contact hours	CO
Unit-1	**Brand and Brand Management** Brands and Brand Management – What is Brand? Why do Brands Matter? Can anything be Branded? What are the strongest Brands? Branding challenges and opportunities. Brand Equity concept, Strategic Brand Management Process. Developing a Brand Strategy - Customer Based Brand Equity and Brand Positioning.	9 Hours	CO1
Unit-2	**Developing a Brand Strategy** Brand Resonance and the Brand Value Chain – Building strong Brand, Brand Value chain. Choosing Brand elements to Build Brand Equity – Criteria for choosing Brand elements, Options and tactics for Brand elements, putting it all together. Designing Marketing Programs to Build Brand Equity – Product strategy, pricing strategy, Channel strategy.	10Hours	CO2

Unit-3	**Designing and Implementing Brand Marketing programs** Integrating marketing Communications to Build Brand Equity – The new media environment, Four major marketing communications, Brand amplifiers, Developing integrated marketing communication programs. Branding in Digital Era – Key issues, Brand engagement, Digital communications, Overview of social media paid channels, Mobile marketing, Influencer marketing and social media celebrities, Content marketing, Brand Management structure. Leveraging Secondary Brand Associations to Build Brand Equity	10Hours	CO3
Unit-4	**Measuring and Interpreting Brand Performance** Developing a Brand Equity measurement and Management system, Measuring Sources of Brand Equity: Capturing Customer Mind-set, Measuring Outcomes of Brand Equity: Capturing Market Performance Designing and Implementing Brand Architecture strategies.	10Hours	CO4

References:

- Keller, K. L Strategic brand management: Building, measuring, and managing brand equity. Pearson Education India
- Strategic Brand Management, Building, Measuring and Managing Brand Equity, 5th Global Edition - Kevin Lane Keller and Vanitha Swaminathan.

Director
School of Management Studies
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru- 560 064

REVA UNIVERSITY
Bengaluru, India

SCHOOL OF MANAGEMENT STUDIES

Proceedings of the Board of Studies (BOS) Meeting held on 29th May 2021 at 2 pm , Virtually using M S Teams

Agenda:

1. Presentation of course matrix of UG and PG.
2. Approval of Course work curriculum for Ph.D.
3. Regarding Specializations for UG and PG
4. Regarding New Coding Pattern – Course Codes
5. Open electives for UG and PG.- Courses and Credit – UG and PG
6. Any other matter with permission of chair.

MEMBERS PRESENT

1.	Dr.M Dhanamjaya	**Vice - Chancellor**
2.	Dr. Shubha A	Chairperson
3.	Dr.M Subramanyam	Member
4.	Dr. P.Narayana Reddy	External Member
5.	Dr.Ramana Gujaral	External Member
6.	Dr.Divakar Naidu B	Member
7.	Dr.S.K.Prasad	Member
8.	Dr.M Lokanadha Reddy	Member
9.	Dr.Anshu rani	Member
10.	Dr.Nitu Ghosh	Member
11.	Dr Subhashree Kar	Member

Proceedings:

At the outset Dr.Shubha A, Director, School of Commerce and Management Studies, REVA University welcomed the members of BOS for the deliberations. She highlighted information related to curriculum design to the members with the brief up regarding the process of continuously updating the curriculum as per the industry requirements.

The BOS members were highlighted about the expectations of REVA University with respect to Curriculum designing. The curriculum discussed and designed should emphasize on lifelong learning with adoption of technology. It should also include life skills, self-learning, Social and Ethical component which are introduced as non-audit courses. The curriculum so designed should provide include more skill oriented courses, which will enable students to become more employable or start a Business enterprise of their own, She also discussed about the initiatives taken by the University regarding grooming the students with all industrial requirements and by imparting employability skills in the due course of their stay.

Dr.M Dhanamjaya, Vice-Chancellor, REVA University mentioned about how industry Oriented the syllabus of all programs are and also mentioned about the progressive phase of REVA University.

The detailed discussions were held as per the agenda points:

Agenda No. 1 ***Presentation of course matrix of BBA (II), BBA (H) and MBA***

***a) Presentation of course matrix of BBA (II)*:** The discussion began with BBA syllabus. The following issues were discussed

(Annexure-I)

Resolution: The members of the BOS discussed in detail about syllabus for BBA (II) Program. The members deliberated on Structure and Syllabus of BBA (II) and checked the contents of specialization courses offered noticed that there are no modifications needed, hence the syllabus was approved as it is without modifications.

Members approved the credit structure of BBA – Industry Integrated-120 credits, Inclusive of language courses up to fourth semester and also non-audit courses. The Board members appreciated the number of credits and mentioned that the courses are well chosen.

b) Presentation of course matrix of B.BA (H): **(Annexure-II)**

Resolution: The members of the BOS discussed in detail about syllabus for BBA (H) Program. The members are deliberated on Structure and Syllabus of BBA (H) with DUAL SPECIALIZATION being introduced at Undergraduate level like

✓ Talent Management and Marketing

✓ Finance and Banking

✓Strategy and Leadership '

✓ New Venture Planning and Family Business Management

✓Business analytics and design thinking

✓ Branding and Advertisement

✓ Hospital and Healthcare Management

Members approved the changes of credit structure (BBA-H-152 credits), Inclusive of language courses up to fourth semester and also non-audit courses. The Board members appreciated the number of credits and mentioned that the courses are well chosen.

(c) Presentation of course matrix of BBA (Entrepreneurship):

The members of the B08 discussed in detail about syllabus for BBA (Entrepreneurship) Program. The members deliberated on Syllabus of BBA (Entrepreneurship), noticed that there are no' modifications needed, hence the syllabus was approved as it is without modifications for 2019 and 2020 batches .Since for 2021 batch the specialization New venture planning and FBM is introduced in Honors therefore a separate BBA — E program will NOT be offered

(d) Presentation of course matrix of MBA ***(Annexure-III)***

Resolution: Members discussed and deliberated in length about the MBA curriculum and appreciated DUAL SPECIALIZATION being offered in emerging domains , where students can select two specializations and in each of the selected domains they will be provided with THREE courses each (Total SIX elective courses in 3rd Semester) and THREE courses each (Total SIX elective courses in 4th semester).The present curriculum also includes one Skill development course for every semester, which will enable the students to get Jobs/Start Business as a non—audit courses.

As per the AICTE Norms 102 credits should be there for MBA program, accordingly syllabus has been structured and noticed that there are no modifications needed, hence the syllabus was approved as it is without modifications. The Board members appreciated the number of credits and mentioned that the courses are well chosen.

Changes in the nomenclature and syllabus were recommended in the following courses which was reviewed by the BOS and approved

- ✓ Product and Brand Management – Was changed to Strategic Brand Management – Specialization course of Marketing specialization (Syllabus is attached)
- ✓ HR tools and Analytics – HR specialization course – 4 semester MBA – Content has been revised

Agenda No. 2 ***Approval of Course work curriculum for Ph.D. – 2021 batch*** **(Annexure-IV)**

Resolution: After thorough discussion the members, approved the course work syllabus for Advanced Research Methodology and Ethics in Research and Publication Courses for EIGTH batch Ph.D. scholars of Management studies

The BOS members highlighted the importance of Course work and suggested that Operational concepts to be stressed upon by the research guide to ensure that the student understands the area of research in detail. It was stressed that more focus should be laid upon the research area by laying importance on macro aspects. The members felt that there is no need of any change in the proposed syllabus for the EIGTH batch of PhD Scholars.

Agenda No. 3: ***Regarding Specializations offered for UG and PG***

Resolution: After thorough discussions and deliberations the specialization streams to be offered was decided for the following programs offered by School of Management Studies

BBA – Industry Integrated Program

Specialization to be offered

- ✓ Finance
- ✓ HR

- ✓ Marketing

The above mentioned specializations will be opted by students who are pursuing BBA – Industry Integrated Program and specialization courses will be introduced in 4th and 5th Semester Respectively, Students opting for BBA – Industry Integrated Program will be entitled only for single specialization and in the specialization stream opted TWO courses will be offered in 4th Semester and TWO courses will be offered in 5th semester carrying 3 Credits each

BBA – Honors Program

Specialization to be offered

- ✓ Talent Management and Marketing
- ✓ Banking and Finance
- ✓ Strategy and Leadership
- ✓ New Venture Planning and Family Business Management

The above mentioned specializations will be opted by students who are pursuing BBA – Honors Program and specialization courses will be introduced in 4th and 5th Semester Respectively, Students opting for BBA–Honors Program will be entitled for DUAL specialization and in the specialization stream opted FOUR (two courses in each of the stream) courses will be offered in 4th Semester and FOUR (two courses in each of the stream) courses will be offered in 5th semester carrying 3 Credits each

MBA Program

Specialization to be offered – Combination of any TWO specialization

- ✓ Finance
- ✓ HR
- ✓ Marketing
- ✓ International Business
- ✓ Operations Research
- ✓ Innovation and Entrepreneurship

- ✓ Strategy and Leadership

The above mentioned specializations will be opted by students who are pursuing MBA - Program and specialization courses will be introduced in 3rd and 4th Semester Respectively, Students opting for MBA –Program will be entitled for DUAL specialization and in the specialization stream opted THREE courses (in each of the stream opted) will be offered in 3rd Semester and THREE courses (in each of the stream opted) will be offered in 4th semester carrying 3 Credits each.

Agenda No.4: ***Introduction of New Coding Pattern – Course Codes***

Resolution: As per the decision taken by the University the Coding pattern was newly adopted reflecting the School, Program, year and so on giving more clarity and meaning for the coding pattern

Agenda No. 5: ***Open electives for UG and PG.***

Resolution: After through discussion, the members present approved the open elective subjects. I.e. Introduction to Management for Post graduate students and Career Planning and Development and Ethical Values for Business for UG.

Agenda No. 6: ***Any other matter with the permission of the Chair***

Resolution: To ensure smooth and successful delivery of all courses was stressed upon. It was suggested that the online certification courses be industry oriented and should add value to the program. The calendar of events for the Semesters I , III and V of BBA/ BBA(H) /BBA (E) and I, III MBA was approved.

BOS members appreciated REVA University for switching over from offline to online teaching during this pandemic situation and conducting online exams and announcing the results on time.

The meeting ended with vote of thanks by Dr.Shubha A, Director, School of Commerce and Management Studies,

Chairperson
Dr Shubha A
Professor and Director
Faculty of Commerce and Management Studies
REVA University, Bangalore

Director
School of Management Studies
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru- 560 0

REVA UNIVERSITY
Bengaluru, India

SCHOOL OF MANAGEMENT STUDIES

BOARD OF STUDIES

Proceedings of the Board of Studies (BOS) Meeting was conducted virtually using MS teams On 29th May 2021 at 2 pm

Members Presnt:

Sl. No	Name of the Member	Designation	Signature
1.	Dr. M. Dhanamjaya Vice Chancellor REVA University registrar@reva.edu.in +91-80-66226622	Vice Chancellor	Virtually attended
2.	Prof. Shubha A Director School of Commerce and Management, REVA University 8095491949 dir.comm@reva.edu.in/ shubha@revainstitution.org	Chair-Person	Virtually attended
3.	Dr.M.Subramanyam Associate professor School of Management Studies , REVA University drmutyala@reva.edu.in 9632390819	Member	Virtually attended
4.	Prof. Narayana Reddy Group Director, Sanskrithi Group of Institutions, Puttaparthi, Anantapur, Andhra Pradesh. 515134. Cell: 73493 37819, 9440117409. Email: groupdirector@sseptp.org profpnr@yahoo.co.in 9440114709	External Member	Virtually attended
5.	Prof.Tyaga Raju Dean, Department of Management Rani Chennamma University 9448697046 thyagaraj1121@gmail.com	External Member	Virtually attended
6.	Dr. Ramana Gujral Professor & Regional Director,	External Member	Virtually attended

	EDII, 5th Block, Rajaji Nagar, Bengaluru-560010, KA South – Bengaluru Region.		
7.	Dr.Divakar Naidu B Associate professor School of Management Studies , REVA University divakar.naidu@reva.edu.in 9448011758	Member	Virtually attended
8.	Dr. S K Prasad Professor School of Management, REVA University skprasad@reva.edu.in 9739731827	Member	Virtually attended
9.	Dr Subhashree Kar Professor School of Management Studies REVA University subhasree.kar@reva.edu.in	Member	Virtually attended
10.	Dr.Nitu Ghosh Assistant Professor School of Management Studies nitughosh@reva.edu.in 9845108905	Member	Virtually attended

Dr. Shubha A

Director

School of Management Studies

School of Management Studies
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru- 560 064

Course Title : STRATEGIC BRAND MANAGEMENT

Course Code: M20MB3260

Course Description: The course aims to help students gather knowledge and develop skills to be able to effectively engage in the field of sales and marketing with the appropriate use of product brand management concepts.

Course Objectives: The objective of this course is to:

1. Understand the concepts related to brand product management
2. Understand the concepts of customer analysis and brand development.
3. Understand the concepts of brands and various elements of branding.
4. Discuss about the brands in different sectors and expose them to the concept of brand imitation.

Course Outcomes: On successful completion of this course students shall be able to:

CO1: Analyze the product planning process and the various factors impacting changes in brand management.

CO2: Analyze the stages of brand development and reasons for failure of new brands.

CO3: Articulate the elements of branding and the importance and significance of brand equity.

CO4: Identify brand extension and branding strategies in different sectors.

Course Pre-requisites: Basic understanding about Branding and Marketing Management

Pedagogy: Direct Method, ICT, Case study

LTP: 2:1:0

Course type: SC

Contact Hours: 39

Units	Detailed Syllabus	Contact hours	CO
Unit-1	**Brand and Brand Management** Brands and Brand Management – What is Brand? Why do Brands Matter? Can anything be Branded? What are the strongest Brands? Branding challenges and opportunities. Brand Equity concept, Strategic Brand Management Process. Developing a Brand Strategy - Customer Based Brand Equity and Brand Positioning.	9 Hours	CO1
Unit-2	**Developing a Brand Strategy** Brand Resonance and the Brand Value Chain – Building strong Brand, Brand Value chain. Choosing Brand elements to Build Brand Equity – Criteria for choosing Brand elements, Options and tactics for Brand elements, putting it all together. Designing Marketing Programs to Build Brand Equity – Product strategy, pricing strategy, Channel strategy.	10Hours	CO2

Unit-3	**Designing and Implementing Brand Marketing programs** Integrating marketing Communications to Build Brand Equity – The new media environment, Four major marketing communications, Brand amplifiers, Developing integrated marketing communication programs. Branding in Digital Era – Key issues, Brand engagement, Digital communications, Overview of social media paid channels, Mobile marketing, Influencer marketing and social media celebrities, Content marketing, Brand Management structure. Leveraging Secondary Brand Associations to Build Brand Equity	10Hours	CO3
Unit-4	**Measuring and Interpreting Brand Performance** Developing a Brand Equity measurement and Management system, Measuring Sources of Brand Equity: Capturing Customer Mind-set, Measuring Outcomes of Brand Equity: Capturing Market Performance Designing and Implementing Brand Architecture strategies.	10Hours	CO4

References:

- Keller, K. L Strategic brand management: Building, measuring, and managing brand equity. Pearson Education India
- Strategic Brand Management, Building, Measuring and Managing Brand Equity, 5th Global Edition - Kevin Lane Keller and Vanitha Swaminathan.

Director
School of Management Studies
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru- 560 064

REVA UNIVERSITY
Bengaluru, India

SCHOOL OF COMMERCE * REVA UNIVERSITY *

SCHOOL OF COMMERCE

The Ninth Proceedings of the Board of Studies (BOS) Meeting held on 29th May 2021 at 11 am , Virtually by using MS Teams

Agenda:

1. Presentation of course matrix of UG and PG.
2. Approval of Course work curriculum for Ph.D.
3. Regarding Specializations – UG and PG
4. Introduction of New coding pattern – course codes
5. Regarding Open Elective Courses – Credits and Courses – UG and PG
6. Any other matter with permission of chair.

MEMBERS PRESENT

1.	Dr..M Dhanamjaya	**Vice- Chancellor**
2.	Dr. Shubha A	Chair- Person
3.	Prof .Kantharaju G	Member
4.	Dr Narayana Reddy	External Member
5.	Dr. AV Ramana	External Member
6.	Dr B Ramesh	External Member
7.	Dr.Harani B	Member
8.	Dr.M. Lokanadha Reddy	Member
9.	Dr.Ruchi Gupta	Member
10.	Dr.Shalini B	Member

Proceedings:

At the outset Dr.Shubha A, Director, School of Commerce and Management Studies, REVA University welcomed the members of BOS for the deliberations. She highlighted information related to curriculum design to the members with the brief up regarding the process of continuously updating the curriculum as per the industry requirements.

The BOS members were highlighted about the expectations of REVA University with respect to Curriculum designing. The curriculum discussed and designed should emphasize on lifelong learning with adoption of technology. It should also include life skills, self-learning, Social and Ethical component which are introduced as non-audit courses. The curriculum so designed should provide include more skill oriented courses, which will enable students to become more employable or start a Business enterprise of their own, she also discussed about the initiatives taken by the University regarding grooming the students with all industrial requirements and by imparting employability skills in the due course of their stay.

Dr.M Dhanamjaya, Vice-Chancellor, REVA University mentioned about how industry Oriented the syllabus of all programs are and also mentioned about the progressive phase of REVA University.

The detailed discussions were held as per the agenda points:

Agenda No. 1 ***Presentation of course matrix of B.Com (II), B.Com (H) and M.Com***

***a) Presentation of course matrix of B.Com (II)*:** The discussion began with B.Com syllabus. The following issues were discussed **(Annexure-I)**

Resolution: The members of the BOS discussed in detail about syllabus for B.Com (II) Program. The members deliberated on Structure and Syllabus of B.Com (II) and checked the contents of specialization courses offered like Accounting, Finance, Banking and International Business noticed that there are no modifications needed, hence the syllabus was approved as it is without modifications.

Members approved the credit structure of (B.Com (II)-120 credits and Inclusive of language courses up to fourth semester and also non-audit courses. The Board members appreciated the number of credits and mentioned that the courses are well chosen.

b) Presentation of course matrix of B.Com (H): **(Annexure-II)**

Resolution: The members of the BOS discussed in detail about syllabus for B.Com (H) Program. The members deliberated on Structure and Syllabus of B.Com (H) with introduction of DUAL SPECIALIZATION being introduced at Undergraduate level like

- ✓ Accounting and Taxation
- ✓ Economics and Finance
- ✓ Accounting and Statistics
- ✓ Banking and Insurance
- ✓ Corporate Governance and Auditing
- ✓ Innovation and Entrepreneurship
- ✓ Marketing and Human Resource

B.Com (H)-150 credits, Members approved the credit structure, inclusive of language courses up to fourth semester and also non-audit courses. The Board members appreciated the number of credits and mentioned that the courses are well chosen.

c) Presentation of course matrix of M.Com **(Annexure-III)**

Resolution: After thorough discussion, regarding the of M.Com course structure and syllabus with five specializations, where in the student has the opportunity to select DUAL SPECIALISATION i.e. Accounting, Finance, Human Resource Management, Marketing Management and International Business.(combination of any two specialization) The members reviewed the credit structure (M.Com-90 credits) and felt the curriculum meets all the requirements of concerned program and therefore approved the same. The present curriculum also includes one Skill development course for every semester, which will make students employable as non-audit courses. The members suggested that the projects needs to be stressed upon to ensure the uniqueness in which the projects will be done by the final year students.

Agenda No. 2 ***Approval of Course work curriculum for Ph.D.*** **(Annexure-IV)**

Resolution: After thorough discussion the members, approved the course work syllabus for Advanced Research Methodology, Ethics in Research and Publication of School of Commerce.

The BOS members highlighted the importance of Course work and suggested to Operational concepts to be stressed upon by the research guide to ensure that the student understands the area of research in detail. It was stressed that more focus should be laid upon the research area by laying importance on macro perspective. The members felt that there is no need of any change in the proposed syllabus for the Eighth batch of PhD Scholars.

Agenda No. 3: ***Regarding Specializations offered for B.Com – II, B.Com –H, M.Com***

Resolution: After thorough discussions and deliberations the specialization streams to be offered was decided for the following programs offered by School of Commerce

B.Com – Industry Integrated Program

Specialization to be offered

- ✓ Accounting
- ✓ Finance
- ✓ Banking
- ✓ International Business

The above mentioned specializations will be opted by students who are pursuing B.Com – Industry Integrated Program and specialization courses will be introduced in 4th and 5th Semester Respectively, Students opting for B.com – Industry Integrated Program will be entitled only for single specialization and in the specialization stream opted TWO courses will be offered in 4th Semester and TWO courses will be offered in 5th semester carrying 3 Credits each

B.Com – Honors Program

Specialization to be offered

- ✓ Accounting and Taxation
- ✓ Economics and Finance
- ✓ Accounting and Statistics
- ✓ Banking and Insurance
- ✓ Corporate Governance and Auditing
- ✓ Innovation and Entrepreneurship
- ✓ Marketing and Human Resource

The above mentioned specializations will be opted by students who are pursuing B.Com Honors Program and specialization courses will be introduced in 4th and 5th Semester Respectively, Students opting for B.com –Honors Program will be entitled for DUAL specialization and in the specialization stream opted FOUR (two courses in each of the stream) courses will be offered in 4th Semester and FOUR (two courses in each of the stream) courses will be offered in 5th semester carrying 3 Credits each

M.Com Program

Specialization to be offered – Combination of any TWO specialization

- ✓ Accounting
- ✓ Finance
- ✓ Banking
- ✓ International Business

The above mentioned specializations will be opted by students who are pursuing M.Com - Program and specialization courses will be introduced in 3rd and 4th Semester Respectively; Students opting for M.com –Program will be entitled for DUAL specialization and in the specialization stream opted THREE courses (in each of the stream opted) will be offered in 3rd Semester and THREE courses (in each of the stream opted) will be offered in 4th semester carrying 3 Credits each.

Agenda No.4: ***Introduction of New Coding Pattern – Course Codes***

Resolution: As per the decision taken by the University the Coding pattern was newly adopted reflecting the School, Program, year and so on giving more clarity and meaning for the coding pattern

Agenda No. 5: ***Open electives for UG and PG.***

Resolution: After through discussion, the members present approved the open elective subjects offered by School of Commerce to other school students' i.e. financial management for Post graduate students and Principles of Insurance and Leadership and team Development for UG

Agenda No. 6: ***Any other matter with the permission of the Chair***

Resolution: To ensure smooth and successful delivery of all courses was stressed upon. It was suggested that the online certification courses be industry oriented and should add value

to the program. The calendar of events for the Semesters I, III and V of B.Com/ B.Com (H) and I, III M.Com was approved.

BOS members appreciated REVA University for adopting TET process and switching over from offline to online teaching during this pandemic situation and conducting online exams and announcing the results on time.

The meeting ended with vote of thanks proposed by Dr. Shubha A, Director, School of Commerce and Management Studies,

Chairperson

Dr Shubha A

Professor and Director

Faculty of Commerce and Management Studies

REVA University, Bangalore

Director
School of Commerce
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru - 560 064

REVA UNIVERSITY
Bengaluru, India

SCHOOL OF COMMERCE

BOARD OF STUDIES

Proceedings of the Board of Studies (BOS) Meeting was conducted virtually using MS teams On 29th May 2021 at 11 am

Members Present:

Sl. No	Name of the Member	Designation	Signature
1.	Dr. M. Dhanamjaya Vice-Chancellor REVA University registrar@reva.edu.in +91-80-66226622	Vice-Chancellor	Virtually attended
2.	Prof. Shubha A Director School of Commerce, REVA University dir.comm@reva.edu.in/ shubha@revainstitution.org 8095491949	Chair-Person	Virtually attended
3.	Mr. Kantha Raju G Assistant professor School of Commerce, REVA University gkantharaju@reva.edu.in 8105836968	Member	Virtually attended
4.	Prof. Narayana Reddy Group Director, Sanskrithi Group of Institutions, Puttaparthi, Anantapur, Andhra Pradesh. 515134. Cell: 73493 37819, 9440117409. Email: groupdirector@sseptp.org profpnr@yahoo.co.in 9440114709	External Member	Virtually attended
5.	Prof. AV Ramana S K Uinversity, Anantapur skuramana@yahoo.com 9511840473	External Member	Virtually attended
6.	Prof. B.Ramesh Goa University brames@rediffmail.com 9511840473	External Member	Virtually attended
7.	Phalguan Iyengar Director SPHADRA adoptadeptachieve@gmail.com 9738128890	External Member	Virtually attended

8.	Dr.Harani B Assistant professor School of Commerce, REVA University harani.b@reva.edu.in 8951177066	Member	Virtually attended
9.	Dr.Lokanadha Reddy Associate professor School of Commerce, REVA University lokanadhareddy@reva.edu.in 9490991873	Member	Virtually attended
10.	Dr.Ruchi Gupta Associate professor School of Commerce, REVA University ruchigupta@reva.edu.in 9538036813	Member	Virtually attended
11.	Dr.Shalini B Assistant professor School of Commerce, REVA University shalini.b@reva.edu.in 7848833386	Member	Virtually attended

Dr. Shubha A
Professor & Director

School of Commerce
Director
School of Commerce
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru - 560 064

REVA UNIVERSITY

School of Arts, Humanities & Social Sciences

5th Board of Studies Meeting (B.A. PEJ)

Date: Tuesday, 1st June 2021
Time: 10:00 am
Platform: MS Teams

Constitution of BOS Members (B.A. Political Science, Economics, Journalism – PEJ):

Sl. No.	Name	Designation	Institutional Affiliation
1.	Dr. M. Dhanamjaya	Vice Chancellor	REVA University, Bengaluru
2.	Dr. Payel Dutta Chowdhury	Chairperson (Professor & Director, SoAHSS)	REVA University, Bengaluru
3.	Dr. Balasubramanya T	Member (External Expert)	HOD, Dept. of Political Science, Maharani Ammani College, Bengaluru
4.	Prof. Xavier V.K.	Member (External Expert)	HOD, Dept. of Economics, Jain (Deemed-to-be) University, Bengaluru
5.	Ms. Sharon Sebastian	Member (External Expert)	Producer & Anchor, Flowers TV, Des Plaines, USA
6.	Dr. Nandini Lakshmikantha	Member (External Expert)	Professor, School of Media Studies, Manipal University, Manipal
7.	Dr. Prakruthi H.N.	Member (External Expert)	Professor, PG Dept. of English, Jyoti Nivas College (Autonomous), Bengaluru
8.	Dr. Chamundeshwari C	Member (Associate Professor & Assistant Director, SoAHSS)	REVA University
9.	Dr. Sreenivas Murthy	Member (Associate Professor, Hindi, SoAHSS)	REVA University
10.	Prof. Manjunatha M.	Member (Assistant Professor & Coordinator, Dept of Media Studies, SoAHSS)	REVA University
11.	Dr. Prasanna	Member (Assistant Professor, Kannada, SoAHSS)	REVA University
12.	Prof. Pratichi Samal	Member (Assistant Professor,	REVA University

		Political Science, SoAHSS)	
13.	Prof. Pilla Venkataswamy	Invitee (Assistant Professor, Economics, School of Commerce)	REVA University
14.	Mr. Wahidullah Taniwal	Student Member (B.A. PEJ) & Campus Ambassador at Peace Campaign Nepal American University of Afghanistan (AUAF)	REVA University

Agenda of the 5th meeting of the Board of Studies in Arts, Humanities and Social Sciences (B.A. Triple Major – B.A. PEJ) to be held on 1st June 2021:

Agenda - BOS (TM) 5:1 Consideration of the modifications in the scheme of instructions of B.A. PEJ for the batches starting 2021-22.

Agenda – BOS (TM) 5.2 Consideration of the modifications in the credits and examination pattern of Communicative English – I and Communicative English – II for B.A. PEJ 1st and 2nd semesters respectively for the batches starting 2021-22.

Agenda – BOS (TM) 5:3 Consideration of the modifications in the credits, examination pattern and syllabus of Language I – IV: Additional English for B.A. PEJ 1st to 4th semesters respectively for the batches starting 2021-22.

Agenda – BOS (TM) 5:4 Consideration of the modifications in the credits, examination pattern and syllabus of Language I – IV: Kannada for B.A. PEJ 1st to 4th semesters respectively for the batches starting 2021-22.

Agenda – BOS (TM) 5:5 Consideration of the modifications in the credits, examination pattern and syllabus of Language I – IV: Hindi for B.A. PEJ 1st to 4th semesters respectively for the batches starting 2021-22.

Agenda – BOS (TM) 5.6 Consideration of the modifications in the syllabus of Journalism courses for B.A. PEJ for the batches starting 2021-22.

Agenda – BOS (TM) 5:7 Consideration of the inclusion of Interdisciplinary Elective in B.A. PEJ for the batch starting 2021-22.

Agenda – BOS (TM) 5.8: Consideration of the modifications in the syllabus of soft-core courses in Political Science and Economics for 5th and 6th Semester B.A. PEJ for the batch starting 2021-22.

Agenda – BOS (TM) 5.9: Consideration of the inclusion of the course, Soft Skills Training – I & II for 5th and 6th Semester B.A. PEJ for the batches starting 2021-22.

Agenda – BOS (TM) 5.10 Consideration of the introduction of NCC as one of the Open Elective courses for 3rd Semester UG students across the university.

Agenda – BOS (TM) 5.11: Any other matter, with the permission of the chair.

PROCEEDINGS

The Board of Studies for B.A. Triple Major (B.A. PEJ), REVA University, Bengaluru, met on Tuesday, 1st June 2021 at 10:00 virtually through MS Teams platform to discuss and ratify the contents of the curriculum drawn up for the B.A. Triple Major (B.A. PEJ) program at REVA University.
The Meeting of the Board of Studies commenced with a formal welcome and introduction of all the members by Dr. Payel Dutta Chowdhury, Chairperson, BOS. She then placed the agenda before the members and initiated the deliberations.

Agenda - BOS (TM) 5:1 Consideration of the modifications in the scheme of instructions of B.A. JEP for the batches starting 2021-22.

Dr. Payel Dutta Chowdhury briefed the members regarding the changes proposed as per UGC regulations of credit structure for UG programs (non-Honours). This was followed by a detailed discussion on the modifications.

Decision Taken: The Board unanimously decided to offer the three Triple Major program – B.A. PEJ with 120 credits instead of 144 credits from the academic year 2021-22.

Modified Scheme of Instructions of B.A. PEJ attached. (Annexure I, II, III)

Agenda – BOS (TM) 5.2 Consideration of the modifications in the credits and examination pattern of Communicative English – I and Communicative English – II for B.A. PEJ 1st and 2nd semesters respectively for the batches starting 2021-22.

Dr. Payel Dutta Chowdhury briefed the members regarding the modifications suggested in credits and examination pattern of Communicative English – I and II for 1st and 2nd semester BA PEJ, a Triple Major program offered by the School of Arts, Humanities, and Social Sciences. This matter had been taken up during the 8th BOS meeting in English on 31st May 2021 and the approved decision regarding the same was presented.

Decisions Taken: The following modifications have been approved by the Board of Studies in English on 31st May 2021 –

1. Communicative English – I and Communicative English – II will be offered as FC in 1st and 2nd semesters with 2 credits each with L:1, T:1, P:0, Total 2 Credits per semester and weekly contact hours is 3.
2. The syllabus of Communicative English – I and Communicative English – II will remain the same as the academic year 2020-21, without any modifications.
3. Communicative English I and Communicative English II will have the following examination pattern and marking scheme:

IA1 – 20 marks – 60 mins duration
IA1 Assignment – 5 marks
IA2 – 20 marks – 60 mins duration
IA2 Presentation – 5 marks
Internal Assessment = 50 marks which will be scaled down to 25 marks
SEE – 50 marks which will be scaled down to 25 marks – 2 hours duration

TOTAL – 25 (Internal Assessment) + 25 (SEE) = 50 marks

Syllabus of Communicative English – I and Communicative English – II with modified credits and contact hours attached. (Annexure IV)

<u>Agenda – BOS (TM) 5:3</u> Consideration of the modifications in the credits, examination pattern and syllabus of Language I – IV: Additional English for B.A.PEJ, 1st to 4th semesters respectively for the batches starting 2021-22.

Dr. Payel Dutta Chowdhury briefed the members regarding the modifications suggested in credits, examination pattern and syllabus of Language I – IV: Additional English for 1st to 4th semesters BA PEJ, a Triple Major program offered by the School of Arts, Humanities, and Social Sciences. This matter had been taken up during the 8th BOS meeting in English on 31st May 2021 and the approved decision regarding the same was presented.

Decisions Taken: The following modifications have been approved by the Board of Studies in English on 31st May 2021 –
1. Language I: Additional English, Language II: Additional English, Language III: Additional English and Language IV: Additional English will be offered as FC in 1st, 2nd, 3rd and 4th semesters with 2 credits each with L:1, T:1, P:0, Total 2 Credits per semester and weekly contact hours is 3.
2. The syllabus of Language I – IV: Additional English has been modified as mentioned below:
The texts to be removed are mentioned.
Language I: Additional English
William Wordsworth: Three Years She Grew in Sun and Shower (Unit I)
William Shakespeare: An Excerpt from *The Tempest* (Unit II)
Elizabeth Bishop: The Question of Travel (Unit III)
Rupert Brooke: Success (Unit IV)
Language II: Additional English
Robert Frost: Stopping by Woods on a Snowy Evening (Unit I)
Sowvendra Shekhar Hansda: The Adivasi Will Not Dance (Unit II)

Usha Navrathnaram: To Mother (Unit III)
Sir Arthur Conan Doyle: The Hound of the Baskervilles – removed and The Adventure of Lion's Mane – included (Unit IV)
Language III: Additional English – changes already made as per 2 credits in 2020-21 BOS
Language IV: Additional English – changes already made as per 2 credits in 2020-21 BOS

3. Language I – IV: Additional English will have the following examination pattern and marking scheme:

IA1 – 20 marks – 60 mins duration
IA1 Assignment – 5 marks
IA2 – 20 marks – 60 mins duration
IA2 Presentation – 5 marks
Internal Assessment = 50 marks which will be scaled down to 25 marks
SEE – 50 marks which will be scaled down to 25 marks – 2 hours duration

TOTAL – 25 (Internal Assessment) + 25 (SEE) = 50 marks

Syllabus of Language I – IV: Additional English with modified credits, contact hours and texts attached. (Annexure V)

Agenda – BOS (TM) 5:4 Consideration of the modifications in the credits, examination pattern and syllabus of Language I – IV: Kannada for B.A. PEJ, 1st to 4th semesters respectively for the batches starting 2021-22.

Dr. Payel Dutta Chowdhury briefed the members regarding the modifications suggested in credits, examination pattern and syllabus of Language I – IV: Kannada for 1st to 4th semesters BA PEJ, a Triple Major program offered by the School of Arts, Humanities, and Social Sciences. **The same credits, examination pattern, and syllabus are applicable to all 4 Semesters of Language I – IV: Kannada.**
Decisions Taken: The following modifications have been approved by the Board of Studies in –
1. Language I: Kannada, Language II: Kannada, Language III: Kannada and Language IV: Kannada will be offered as FC in 1st, 2nd, 3rd and 4th semesters with 2 credits each with L:1, T:1, P:0, Total 2 Credits per semester and weekly contact hours is 3.
2. The syllabus of Language I – IV: Kannada has been modified as mentioned below:

BAJEP: Texts/ Topics to be removed are mentioned below –
1st Semester:

UNIT– I ¥ÀA¥À£ **'£®iÀÄU ¤£ ªÀPzÉs¼É'** JA§ PÁªå¨sÁUÀª£ÀÄß vUÉzÄºÁPÀwÁVzÉ

UNIT– II CPªÀÄºÁzÉÃ« **'ªÀZÀ£UÀ¼ÀÄ'** ¨sÁUÀªÀ£ÄßvUÉzÄºÁPÀwÁVzÉ

UNIT– III zÀÄUÀð¹AºÀ£À **'ªÉs®A ¹AºÀªÀÄ PÉsAz Px'** AiÀÄ£ÀÄß vUÉzÄºÁPÀwÁVzÉ

2nd Semester:

UNIT– I ®Që ¨ÄÃ±ÀÃ£ï **‘©qÀ¼UÁ½ ¥ÉsqAiÀ¼wÉÎ’** PÁªÀÅ¨sÁUÀªÀ£ÄßvÛÉzÀÄºÁPÀwÁVzÉ

UNIT– II ºÉ¼ÀªÀ£ÀPÀmÉÖ VjAiÀÄªÀÄä£ï **‘¤¼ÀÄAzP wÉÃiÀÄAlÄ £À¤¼ÀU’** PÁªÀÅ¨sÁUÀªÀ£ÀßvÉÛÉzÀÄºÁPÀwÁVzÉ

UNIT– III ¦ ®APÉÃ±Àgï **‘¤ÉsÃP ºÀÄqÀ¼P¼ÀvÁ ¦œÃwAiÄ §AzÀ£zÀ9’** wÉÃR£ªÀ£ÀßvÉÛÉzÀÄºÁPÀwÁVzÉ

UNIT – IV f J£ï ªÉsÃºÉ£ïgÀ **‘£À£ßUÀV£ ºÁqÄ PÀsÅ¨Á’** ¥ÀæªÁiÀ PÀx£ªÀ£ÀßiÀAUÀæ»iÀwÁUÀÄªÀzÀÄ.

3rd Semester:

UNIT – IV PÉ ªÄgÄ¼À¹zÀPÀà C£ÄªÁ¢¹gÀ¼ª **‘«ÄÃrAiiÁ’** £ÁlPÀz9 ªÉszÀ® CAPÀªÀ£ÀßPÀrvÀUÉs½iÀwÁVzÉ

4th Semester:

UNIT – IV AiÀÄÄÄ Dgï C£ÀAvÀªÄswð Cªgï **‘iÀAiÁÌg’** PÁzÀA§jAiÀÄ ªÀÄsgÀ£Ã ¨sÁUÀªÀ£ÀßvÉÛÉzÀÄºÁPÀwÁVzÉ

3. Language I – IV: Kannada will have the following examination pattern and marking scheme:
IA1 – 20 marks – 60 mins duration
IA1 Assignment – 5 marks
IA2 – 20 marks – 60 mins duration
IA2 Presentation – 5 marks
Internal Assessment = 50 marks which will be scaled down to 25 marks
SEE – 50 marks which will be scaled down to 25 marks – 2 hours duration

TOTAL – 25 (Internal Assessment) + 25 (SEE) = 50 marks

Syllabus of Language I – IV: Kannada (B.A PEJ) (Annexure VI)

<u>Agenda – BOS (TM) 5:5</u> Consideration of the modifications in the credits, examination pattern and syllabus of Language I – IV: Hindi for B.A. PEJ,

Dr. Payel Dutta Chowdhury briefed the members regarding the modifications suggested in credits, examination pattern and syllabus of Language I – IV: Hindi for 1st to 4th semesters respectively of all the BA Triple Major programs offered by the School of Arts, Humanities and Social Sciences. **The same credits, examination pattern and syllabus are applicable to all the 4 semesters of Language I – IV: Hindi.**

Decisions Taken: The following modifications have been approved by the Board of Studies in –

1. Language I: Hindi, Language II: Hindi, Language III: Hindi and Language IV: Hindi will be offered as FC in 1st, 2nd, 3rd and 4th semesters with 2 credits each with L:1, T:1, P:0, Total 2 Credits per semester and weekly contact hours is 3.
2. The syllabus of Language I – IV: Hindi has been modified as mentioned below:

BAJEP: Texts/ Topics to be removed are mentioned below –
1st Semester: Unit - 4 संक्षेपण
2nd Semester: Unit - 4 मीडिया लेखन
3rd Semester: Unit - 4 भारत में डिन्दी मीडिया की समस्याए, ररपोर्टिंग, साक्षात्कार
4th Semester: Unit - 4 अलंकार

IA1 – 20 marks – 60 mins duration
IA1 Assignment – 5 marks
IA2 – 20 marks – 60 mins duration
IA2 Presentation – 5 marks
Internal Assessment = 50 marks which will be scaled down to 25 marks
SEE – 50 marks which will be scaled down to 25 marks – 2 hours duration

TOTAL – 25 (Internal Assessment) + 25 (SEE) = 50 marks

Syllabus of Language I – IV: Hindi (B.A.JEP) with modified credits, contact hours and texts attached. (Annexure VII)

Agenda – BOS (TM) 5.6 Consideration of the modifications in the syllabus of Journalism courses for B.A. PEJ, 2021-22.

Dr. Payel Dutta Chowdhury briefed the members regarding the modifications suggested in syllabus of Journalism courses of B.A. PEJ program. This matter had been taken up during the 5th BOS meeting in Journalism on 30th May 2021 and the approved decision regarding the same was presented.

Decisions Taken: The following modifications have been approved by the Board of Studies in Journalism on 30th May 2021 –
1st Semester – Inclusion of 'Basics of Photoshop' and 'Group Discussion on Current Affairs' as one of the components in **Journalism Practical – I**.
2nd Semester – Inclusion of 'Editing and Designing Software' in Unit IV of **Journalism – II (Reporting & Editing).**
3rd Semester – no changes proposed.
4th Semester – no changes proposed.
5th Semester – Since the courses, Journalism VI (A) Brand Ecology, and Journalism VI (B) Fundamentals of Photography, will be taught now for 2 credits, few topics from the existing syllabus have been removed as mentioned underneath:
Journalism VI (A) Brand Ecology:
Unit I: Identifying and establishing Brand Positioning
Unit II: Choosing Brand Elements to Build Brand Equity

Unit III: Designing and implementing Brand Marketing programs
Unit IV: Sustaining a Brand long term; Global Brand Equity

Journalism VI (B) Fundamentals of Photography:
Unit I: History of photography; Camera accessories: Tripod, Monopod, Filters, Lens hood and Rigs
Unit II: Planning a shoot, studio, location, set props and casting
Unit III: Moving towards the centre Editing
Unit IV: Essentials of a press photograph; Challenges faced by photojournalists

6th Semester – Since the courses, Journalism VIII (A) New Media, and Journalism VIII (B) Development Communication, will be taught now for 2 credits, few topics from the existing syllabus have been removed as mentioned underneath:
Journalism VIII (A) New Media:
Unit I: Meaning and characteristics; Interactivity and New Media; Economics of New Media
Unit II: 'and other media'; Characteristics of the online writer/journalist
Unit III: Design and the writer

Journalism VIII (B) Development Communication:
Unit I: MNCs and foreign aid; i. High dependence on primary sector ii. Unemployment, population iii. Low productivity iv. Low level of living
Unit III: Poverty Alleviation

Syllabus of modified courses in Journalism of B.A. PEJ Journalism Practical – I, Reporting and Editing, Brand Ecology, Fundamentals of Photography, New Media, and Development Communication attached. (Annexure VIII)

Agenda – BOS (TM) 5:7 Consideration of the inclusion of Interdisciplinary Elective in B.A. PEJ for the batch starting 2021-22.

Dr. Payel Dutta Chowdhury briefed the members regarding the inclusion of a new soft-core component, titled, 'Interdisciplinary Elective' to be introduced for B.A. PEJ from the academic year 2021-22.

Decisions Taken: The board discussed the mode of conduct of the Interdisciplinary Electives and deliberated and approved the syllabus. Students will get a chance to study three Interdisciplinary courses in 1st, 2nd and 4th semesters pertaining to their Triple Major courses. If a student X studies Interdisciplinary Elective I in 1st semester, she/ he will study Interdisciplinary Elective II and III in 2nd and 4th semester. The class will be divided into three groups and each group will study one Interdisciplinary Elective per semester. Therefore, every student will get a chance to study all the three Interdisciplinary Electives. The syllabus of these elective courses was discussed and the board appreciated this novel initiative of introducing a new component with very contemporary topics which will help students in their skill enhancement.

Syllabus of Interdisciplinary Electives for B.A. PEJ, attached. (Annexure XI)

Agenda – BOS (TM) 5.8: Consideration of the modifications in the syllabus of soft-core courses in Political Science and Economics for 5th and 6th Semester B.A. PEJ for the batch starting 2021-22.

Dr. Payel Dutta Chowdhury briefed the members regarding the change in credits of 4 soft-core courses in Political Science and Economics taught to B.A. PEJ students. These courses would now be offered for 2 credits instead of 4 credits. She then initiated deliberations on modifications in the syllabus of these courses based on credit pattern.

Decisions Taken: The board discussed and approved that few topics in the syllabus were to be removed.
Political Science: The topics mentioned below have been removed -
Political Science VI (A) International Relations (5th Semester):
Unit I: Idealist, Realist theories
Unit II: Economic Instruments of Foreign Policy
Unit III: Pacific Settlement of International Disputes
Unit IV: Nature and Sanctions of International Law

Political Science VI (B) Comparative Government and Politics (5th Semester):
Unit I: Impact of informal politics
Unit II: States; Legitimacy
Unit III: NGOs; Political Elite
Unit IV: Great Britain

Political Science VIII (A) International Institutions and Foreign Policies (6th Semester):
Unit I: Reforms and Restructuring of the United Nations
Unit II: North-South and South-South Dialogues
Unit IV: India and South Asia; India and South East Asia – 'Look East' and 'Act East Policy'

Political Science VIII (B) Personal and Public Administration (6th Semester):
Unit I: Functions of Government: Regulatory functions, Service providing functions and Developmental functions
Unit II: Lok Pal and Lok Ayukta

Economics: The topics mentioned below have been removed –
Economics VI (A) Mathematical Methods for Economics (5th Semester):
Unit I: Matrices: Meaning-Types of matrices-Elementary operations on matrices-Inverse matrix-Methods of solving simultaneous equations using matrices-Determinants and their uses in solving simultaneous equations-Crammer's rule.
Unit II: Partial Derivatives (Two independent variables) - Rules - Uses of partial derivatives in economics.
Unit III: Maxima and Minima of functions (one independent variable): Simple applications from Micro Economics.

Unit IV: Simple rules of integration - Infinite and definite integral - Calculation of TR and TC functions from their respective MR and MC. Consumer's surplus and Producer's surplus.

Economics VI (B) Entrepreneurial Development (5th Semester):
Unit I: Evolution of Entrepreneurship; Development of Entrepreneurship
Unit II: Organization plan
Unit IV: Importance of international business to the firm; barriers to international trade

Economics VIII (A) Financial Economics (6th Semester):
Unit I: Instruments in the capital markets; financial institutions
Unit II: Indian preparedness to full convertibility
Unit III: Economic factors; market related factors; firm specific factors; indicators of future stock prices.
Unit IV: Foreign exchange futures market

Economics VIII (B) Managerial Economics (6th Semester):
Unit I: Managerial Economist- Role and Responsibilities
Unit III: Capital Budgeting: What is Capital Budgeting? Need for Capital Budgeting; Different Steps in the Capital Budgeting Process; Nature of Capital Budgeting Problem

Syllabus of all the above-mentioned courses attached. (Annexure XII, XIII)

Agenda – BOS (TM) 5.9: Consideration of the inclusion of the course, Soft Skills Training – I & II for 5th and 6th Semester B.A. PEJ for the batches starting 2021-22.

Dr. Payel Dutta Chowdhury briefed the members regarding the inclusion of a new soft-core component, titled, 'Soft Skills Training – I' and 'Soft Skills Training – II' to be introduced in the 5th and 6th Semesters B.A. PEJ for the batches starting from the academic year 2021-22.

Decisions Taken: The board discussed on the importance of Soft Skills Training for employment purposes for final year students. Deliberations took place on the design of the syllabus which was then finalized and approved.

Syllabus of Soft Skills Training – I & II attached. (Annexure XIV)

Agenda – BOS (TM) 5.10 Consideration of the introduction of NCC as one of the Open Elective courses for 3rd Semester UG students across the university.

Dr. Payel Dutta Chowdhury briefed the members regarding a new Open Elective on NCC for 3rd Semester students across the university to be introduced from the academic year 2021-22.

Decisions Taken: The board discussed on the importance of this Open Elective course for students. Deliberations took place on the design of the syllabus which was then finalized and approved.

Syllabus of NCC Open Elective attached. (Annexure XV)

Agenda – BOS (TM) 5.11: Any other matter, with the permission of the chair.

1. The syllabus of all the courses of Political Science offered to B.A. PEJ other than the ones listed under 'Agenda – BOS (TM) 5:11' was checked and the board decided to retain the same without any modification since the program was started in 2019 and the curriculum is very contemporary.
2. The syllabus of all the courses of Economics offered to B.A. PEJ other than the ones listed under 'Agenda – BOS (TM) 5:11' was checked and the board decided to retain the same without any modification since the program was started in 2019 and the curriculum is very contemporary.
3. The board discussed on the present examination pattern of all the courses and decided to retain the same without any modification.
4. The board discussed on the present panel of examiners and decided to retain the same without any modification.

Note: The Chair Person is empowered to change 20% of syllabus

The meeting was concluded by Dr. Payel Dutta Chowdhury Chairperson thanking the members for their valuable inputs and observed that the School of Arts, Humanities & Social Sciences was looking forward to their continued association and interaction in future.

Director
School of Arts, Humanities & Social Sciences

REVA UNIVERSITY
Bengaluru, India

SchoolofAppliedSciences

Department of Mathematics
Proceedings (Minutes) of the BoS Meeting

Date: 01/05/2021
Time: 10:30 am to2:27pm
Meeting addressed by: Dr. Vishu Kumar M

Mode of meeting: MS Teams
MOM:MOM/104/2021
Note Taker:Dr.P.Sridevi

Agenda of meeting:

BoS for B.Sc and M.Sc
Review of Scheme of Instruction and Syllabus of Mathematics and Statistics of all the B.Sc. Programs.and change in credit matrix of M.Sc (Mathematics) and introducing new inter disciplinary open elective in second semester M.Sc., from SoAS.

External BoS Members:
Dr.BiradarKashinath, principal, Govt.FirstGradeCollegeforWomen, JewaragiColony, Kalburagi 585102.
Dr.R.Sumithra,PGCoordinator&Head,ResearchCentre,AssociateProfessor,Dept.ofUG,PGstudies&ResearchinMathematics,Govt.ScienceCollege,Autonomous,NrupathungaUniversity,Bengaluru
Dr.Subramanyam T,Assistant Professor,Dept.of Mathematics,M S Ramaiah University of Applied Sciences,Bengaluru.

Internal BoS Members:
Dr.Hanumagowda BN, Dr.Murugeshan, Dr.Madhusudhana Zalki, Dr.UdayKumarKN, Dr.P.Sridevi, Dr.Brinda Halambi, Dr.RanjithaKumar, Prof.Narayana gowda.

Atendees:
Dr.Vijayachandra Kumar, Dr.Santhosh Kumar, Dr.Salma, Dr.Mohan Kumari, , , Prof.Shivakumar Pathuri.

At the outset, **Dr. Vishu Kumar M**, BoS Chairman, Assistant Director, Department of Mathematics.welcomed the team present to the meeting and addressed the following agenda:

Sir specified new syllabus has 120 credits and he requested to Dr.Vijay Chandra to share PPT and to Dr.Uday Kumar KN to present the syllabus.
Sir instructed to take note suggestions to
Mathematics:Dr.Brunda Halambi and Statistics:Dr.Mohan Kumari

BoS Panel suggestions …
B.Sc Mathematics(P.C.M,P.M.Cs&M.St.Cs) & M.Sc

Subjects titles must be syllabus oriented.

Mathematics-I

"**Recap of differentiation**" should mention

nth derivative of standard functions "**all seven**" should include

Module2:

No changes required.

Module3:

Cancel **Reduction formulae**.

Illustration of cot,sec,cosec should include

Correct printing mistake as $\int \sin^m x \cos^n x \, dx$ instead of $\int \sin^m x \sin^n x \, dx$.

In the third line it should be **integral limit** not integral sign.

Module4:

Delete **elementary matrices** in first line

In third line it must be **Gauss elimination method** not Gaussian elimination method.

Should incorporate **Gauss Jordan Method** also.

Mathematics-II

Module1:

No changes required.

Module2:

No changes required.

Module3:

For last line need to include **illustrative examples**.

Module4:

No changes required.

Mathematics-III

No changes required.

Mathematics-IV

Module1:

Rearrange the topics **Rings-Sub Rings- Fields-Sub Fields.**

Module2:

Identify P.U syllabus, separate it for recapitulation.

Module3:

In second line instead of double integration in to be changed **to change of variable in double.**

Module4:

Suggested not to include Divergence theorem and Stoke's theorem proof,**evaluation and verification to be included.**

Entire **Curve Tracing** to be removed.

Mathematics-V

Module1:

Need to incorporate **only first kind of isomorphism.**

In the last line **Direct sums** to be removed.

Module2:

In the second line image should replace by **Range.**

Module3:

No changes required.

Module4:

Numerical differentiation proof need to be included.

Inverse Lagranges Interpolation method to be incorporate.

Mathematics-VI

Module1:

In second line replace connection by **relation.**

Module2:

$\overline{a^t}$ to be removed.

In second line F(T) by **f(t).**

Module3:

Convolution theorem proof need to be included.

In second line first and second order replace by **simultaneous linear**.

Module4:

Complex form of Fourier series and harmonic analysis need to be incorporated.

Soft Core for 1st sem:

Elementary Number Theory:

In Module 1,2,3 no changes required.

Module4:

Printing mistake Euler totient not **Euler quotient.**

Soft Core for 4th sem:

Discrete Mathematics and Graph theory:

No changes required.

Complex Analysis:

In Module 1&2 no changes required.

Module3:

Cauchy's Theorem replace by **Cauchy's Integral Therem.**

Cauchy's Integral Theorem proof to be included.

Cauchy's Integral formulae for the function and derivatives need to be replace by **Cauchy's Integral formula.**

Cauchy's Integral formula proof to be added.

Module4:

Taylor's theorem and series to be replaced by **Taylor's series**.

Laurent's theorem and series to be replaced by **Laurent's series.**

Cauchy's Residue theorem proof need to be incorporated.

Operations Research:

No changes required.Title need be change.

In **Mathematics Lab1,2,3,6** no changes required.

Mathematics Lab -IV:

Experiments 13 and 14 need to be removed.

Mathematics Lab -IV:

Programs related to caliculus of variation should be removed.

STATISTICS

Dr.Madhusudhan Zalki sir started presentation

Statistics1:

Module2: This can be changed as R- programming.This chapter suitable to open elective.

Module4: Basic probability to be mentioned as recaptuation.

Reference Books:One from Python need to be include.

StatisticsI Lab:

Demonstration to be replace by **practicals using MS Excel.**

Latest **statistical software** need to replace by Python.

StatisticsII Lab:

Demonstration to be replace by **practicals using MS Excel&R-Programming.**

Sampling Theory:

This title should be replace by Applied Statistics.

SQC&Reliability:

In title reliability need to be removed.

Module1: In this Module1 restrict to only basic SQC.

Module2: It can be central chart for variable.

Module3: It can be central chart for attributes.

Module4: It can be product central only.Topic reliability can be removed.

Module4: Simulation can be removed and can be replaced in second sem.

StatisticsV:

ModuleIV: Factorial experiments confounding can be removed.

StatisticsVLab:

Demonstration to be removed in heading.

Practical using MS-Excel/R/Python can be written instead of practicals using MS-Excel.

Experiment 9&10 should be removed.

For all Statistics subjects overall suggestions:

Text Books :Fundamental of Statistics,S.C.Gupta and V.K.Kapoor book should be included.

Referrence Books:Top any five enough.

StatisticsVI:

Module1: can be introduction to OR and LPP.

Module2: Need to be changed as simplex LPP.

Topics are graphical method,simplex and Big-M method need to be incorporated.

Module3:can be Trasportation and Assignment problems.

Module4:can be Game theory

Convertion of Game problems to LPP can be added.

Text Books: Operations Research by JK Sharma and SD Sharma should be included.

StatisticsVI Lab:

Since statistics VI syllabus changed so according to theory syllabus need to change experiments.

LPP solver software if possible introduce to the students.

After that Dr.Vishu Kumar sir presented **Mathematics papers in Bio-Informatics** stream.External BoS members were satisfied with that syllabus.So there are no points to change in those subjects.

Then sir took permission from external BoS members to present **M.Sc syllabus** also.

With the permission of External BoS members Dr.Murugeshan sir started to present M.Sc syllabus and credits. Also introducing new inter disciplinay open elcive in second semester M.Sc., from SoAS for two credits.

No changes team satisfied and suggested to incorporate only licensed softwares.

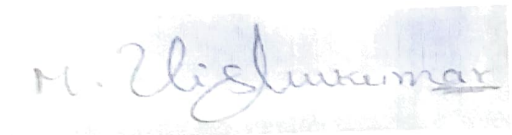
Overall suggestions by External BoS Panel:

Should incorporate all changes what the panel suggested

To get approval need to mail updated syllabus to them.

As there were no other points raised, the meeting was concluded at 2:30 pm.

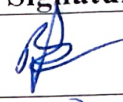
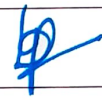
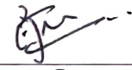
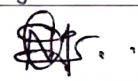
Note taker: Dr. P Sridevi



BOS Chair

(Dr. Vishu Kumar M)

BOS Internal Members

Sl.No	Name	Signature
1.	Dr. Hanumagowda B N	
2.	Dr. Madhusudhan Zalki	
3.	Dr.Murugesan.R.	
4.	Dr. Uday Kumar. K.N.	
5.	Dr.Sridevi.P	
6.	Dr. Brinda Halambi	
7.	Dr. Ranjitha Kumar	
8.	Mr. Narayana Gowda	

Re: MOM of BoS approval

Kashinath Biradar <kbbiradar@yahoo.co.in>
Sat 5/29/2021 3:11 PM
To: Vishu Kumar M <vishukumarm@reva.edu.in>

Please be cautious
This email was sent outside of your organisation

sir,
I am here to state that the meeting was held about bos there respective members has made necessary corection. Also few topics are added which gives more application research feild .
hence i give concent from my side to implement the syllabus framed in the meeting .
tq with regards
urs sincerely
Dr. Biradar kashinath
principal ,govt first grade college for womens kalburagi

On Monday, 24 May, 2021, 10:39:32 am IST, Vishu Kumar M <vishukumarm@reva.edu.in> wrote:

Dear Sir,

Kindly find here with an attachment of MOM of BoS, I kindly request you to send the signed MOM back for our proceedings.

Warm Regards

Dr Vishu Kumar M
Professor | Department of Mathematics | School of Applied Science
Mobile: +91 9845871372

REVA UNIVERSITY | Rukmini Knowledge Park | Kattigenahalli | Yelahanka | Bengaluru | Karnataka 560 064
cid:image001.png@01D60F30.4EE3D810 cid:image002.png@01D60F30.4EE3D810
cid:image003.jpg@01D60F30.4EE3D810 cid:image004.jpg@01D60F30.4EE3D810
cid:image005.png@01D60F30.4EE3D810Chat with me on Teams !

-

Disclaimer: The information transmitted, including attachments, is intended only for the person(s) or entity to which it is addressed and may contain confidential and/or privileged material. Any review, re-transmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and destroy any copies of this information.

On Monday, 24 May, 2021, 10:39:32 am IST, Vishu Kumar M <vishukumarm@reva.edu.in> wrote:

Dear Sir,

Kindly find here with an attachment of MOM of BoS, I kindly request you to send the signed MOM back for our proceedings.

Warm Regards

Dr Vishu Kumar M
Professor | Department of Mathematics | School of Applied Science
Mobile: +91 9845871372

REVA UNIVERSITY | Rukmini Knowledge Park | Kattigenahalli | Yelahanka | Bengaluru | Karnataka 560 064
cid:image001.png@01D60F30.4EE3D810 cid:image002.png@01D60F30.4EE3D810
cid:image003.jpg@01D60F30.4EE3D810 cid:image004.jpg@01D60F30.4EE3D810
cid:image005.png@01D60F30.4EE3D810Chat with me on Teams !

-

Disclaimer: The information transmitted, including attachments, is intended only for the person(s) or entity to which it is addressed and may contain confidential and/or privileged material. Any review, re-transmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and destroy any copies of this information.

Re: Syllabus for BoS approval

sumitra_diya@yahoo.com <sumitra_diya@yahoo.com>
Sun 5/30/2021 5:24 PM
To: Vishu Kumar M <vishukumarm@reva.edu.in>

Please be cautious
This email was sent outside of your organisation

Hi

I am thankful for the opportunity given to me as a BoS member for Reva University in Mathematics. I am hereby approving the syllabus sent by you.

Thanking you
Dr R Sumithra
Associate Professor
Department of UG, PG studies and Research centre
Nrupathunga University Bengaluru
Mobile no 8310246500

On May 3, 2021 9:49 AM, Vishu Kumar M <vishukumarm@reva.edu.in> wrote:
Dear Sir/ Madam

Kindly find here with an attachment of updated B.Sc., syllabus, which is modified according to the BoS members suggestions. Also find the enclosed MOM. I kindly request you to acknowledge and revert the signed copy of the MOM for approval.

Warm Regards

Dr Vishu Kumar M
Professor | Department of Mathematics | School of Applied Science
Mobile: +91 9845871372

REVA UNIVERSITY | Rukmini Knowledge Park | Kattigenahalli | Yelahanka | Bengaluru | Karnataka 560 064
cid:image001.png@01D60F30.4EE3D810 cid:image002.png@01D60F30.4EE3D810
cid:image003.jpg@01D60F30.4EE3D810 cid:image004.jpg@01D60F30.4EE3D810
cid:image005.png@01D60F30.4EE3D810Chat with me on Teams !

-

Disclaimer: The information transmitted, including attachments, is intended only for the person(s) or entity to which it is addressed and may contain confidential and/or privileged material. Any review, re-transmission, dissemination or other use of, or taking of any action in reliance upon this

information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and destroy any copies of this information.

Date: 10.04.2021

REVA UNIVERSITY
Bengaluru, India

REVA UNIVERSITY

SCHOOL OF ALLIED HEALTH SCIENCES

PROCEEDINGS OF BOS MEETING

REVA University, School of Allied Health Sciences realizing the need of academically trained Allied Health Care professionals provides the following courses B.Sc MLT (Medical Laboratory Technology), BSc Medical Radiology and Diagnostic Imaging, and B.Sc Nutrition and Dietetics in association with NABL hospitals and labs.

The meeting of the Board of Studies in School of Biochemistry was held on 10/04/2021 at 10.30 am to discuss on the UG (**BSc Medical Laboratory Technology**) syllabus of 2021 batch programs. At the outset, the Dr. Jayashree S, Chairperson of the BOS in Biochemistry welcomed all the members present, explained the purpose of the meeting and the agenda in brief. Then, the agenda was taken up for discussion. The Proceedings of the meeting are as below:

Agenda: Syllabus upgradation as per UGC norms, Incorporation of CO, PO and POs in complete syllabus, Modification some content in syllabus

The following members were present.

Sl.No.	Name of the Member	Designation	Sign.
1	**Dr. Jayashree S** Prof. and HOD School of Biochemistry, REVA University jayashrees@reva.edu.in 8610123372	Chairperson	
2	**Dr. Gale Kathleen Edward** HOD Laboratory Service and Consultant Pathologist ELBIT Medical Diagnostics Pvt. Ltd galekathleen@gmail.com 9901994545	External Member	
3	**Dr. Sujatha K** Associate Professor of Anatomy, P.E.S. Institute of Medical Sciences and Research, Kuppam, Chittoor district, Andhra Pradesh sujathambbs@gmail.com 9916287074	External Member	
4	**Dr. Ramesh Kumar Kushwaha** School of Biochemistry, REVA University rameshkumar.k@reva.edu.in 7905947987	Internal Member	
5	**Dr. Sikandar Mulla**	Internal Member	

REVA UNIVERSITY SCHOOL OF BIOCHEMISTRY

REVA UNIVERSITY
Bengaluru, India

	School of Biochemistry, REVA University sikandar.mulla@reva.edu.in 7483072566		
6	**Prof. Pooja R Karkera** School of Biochemistry, REVA University poojar.karkera@reva.edu.in 9741224361	Internal Member	

The following modification /changes in the syllabus contents were suggested by the members.

Human Anatomy and Human Physiology subjects for both Ist semester and IInd semester have been shuffled to make continuity of theory and practicals in the syllabus.

Few changes were made on the contents of Biochemistry and Microbiology theory /practical courses of second year of the programme.

In the syllabus contents of final year courses additional subjects of Medical ethics and Biostatistics were included along with Pathology and Biochemistry.

Clinical Postings have been incorporated in all the even semesters, final year and languages are retained in odd semester (first year) to balance the credits as per the new regulations.

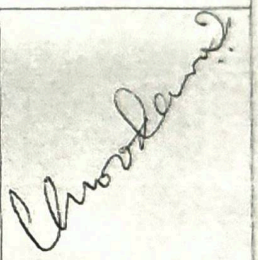
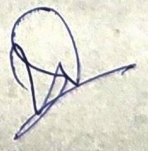
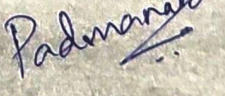
All the BOS members appreciated and (Internal and External) approved the syllabus.

REVA UNIVERSITY
SCHOOL OF BIOCHEMISTRY

REVA UNIVERSITY
Bengaluru, India

BOS MEMBERS

SCHOOL OF PERFORMING ARTS AND INDIC STUDIES

Name and Position	
Dr. Vidya Kumari S., **Director, School of Performing Arts & IndicStudies,** **REVA University, Bangalore.** Ph: 91-9948221424[illegible] E-mail: vidyakumari.s@reva.edu.in (Chairperson)	
Dr. Nagesh Bettakote, **Acting Vice-Chancellor,** **KSGH Performing Arts and Music University** Ph: +91 – 8022961708 E-mail: drvnb1965@gmail.com (External Member-Academics)	NA
Dr. Choodamani Nandagopal **Reputed Art Historian, Former** **Academic head, IGNCA, Southern Regional Centre, UNESCO** **Fellow, UK visiting Nehru Fellow, Bengaluru** Ph: 91-8022440866 E-mail: choodamani.nandagopal@gmail.com (External Member-Academics)	
Dr. CM Neelakandhan, **Former Academic Director, Kerala Kalamandalam, ormer** **Chairperson, Publishing dept.,** **Shree Sankaracharya University of Sanskrit, Kalady, Kerala.** Ph: +91- 9847155603 E-mail: drcmneelakandhan@gmail.com **(External Member-Academics)**	
Guru Sri R. K. Padmanabhan **Ganakalabhushana, Karnataka Padmasri** Ph: +91- 9945201310 E-mail: rkpadmanabha@gmail.com **(External Member-Industry Expert)**	

https://outlook.office.com/mail/inbox/id/AAQkADJhYjUzNjhjLTY1YTYtNDBiMS05MzVjLWFmMzA2MDM3YmJiYwAQAHSNsQAt83dBiY7EkqKPtQo%3...

Scan with Fast Scan

Dr. Sheela Sridhar HOD, Department of Dance, Mysore University Ph: 91-[illegible] E-mail: sheelasridhar58@gmail.com (External Member- Academics)	
Guru Smt. V. B. Bala Kondala Rao Central Sangeet Natak Akademi Awardee, Founder and Director, Kuchipudi Kalaa Kendram, Visakhapatnam Ph: 91- 9440319247 E-mail: kuchipudikalaakendram@gmail.com (External Member - Industry Expert)	V B Bala Kondala Rao
Guru Smt. Sujata Mohapatra, Central Sangeet Natak Akademi Awardee, 1340, Kapilaprasad, Bhimatangi, Bhubaneshwar, Odisha -751002 Ph: 91-9437078192 E-mail: sujatamohap@gmail.com (External Member - Industry Expert)	NA
Dr. Ruma Shil Founder and Director, Nritya Nikunj centre for Kathak, Bengaluru Ph:+91- 8494942362 E-mail: sil.ruma@rediffmail.com (External Member-Academics)	Ruma Shil
Prof. K. Maalyada Anand Assistant Professor, School of Performing Arts and Indic Studies, REVA University, Bengaluru. Ph: +91- 9885868959 Email: maalyada.anand@reva.edu.in (Internal member - Invitee)	K. Maalyada Anand

REVA UNIVERSITY
Bengaluru, India

Proceedings of the meeting of the Board of Studies of the School Performing Arts and Indic Studies held virtually on 2nd June, 2021.

Members Present:

1. Dr. Vidya Kumari S - Chairperson
2. Guru Dr. Choodamani Nandagopal – Member
3. Dr. C M Neelakandan – Member
4. Guru Sri R. K. Padmanabhan – Member
5. Dr.Sheela Shridhar – Member
6. Guru Smt Bala Kondala Rao – Member
7. Dr.Ruma Shil – Member
8. Prof. Maalyada Anand – Internal Member
9. Uthara Amtarjanum – Student
10. Anju Benny - Student

Members Absent:

1. Dr NageshBettakote
2. Guru SujataMohapatra
3. Guru KalamandalamHymavathi

PROCEEDINGS

The Board of Studies meeting for the School of Performing Arts and Indic Studies for the year 2021 was conducted on virtual mode due to the pandemic situation of COVID-19. The meeting was conducted on the Microsoft teams platform.

Scan with Fast Scan

At the outset, Dr. Vidya Kumari S, Chairperson of the Board of Studies in **School of Performing Arts and Indic Studies**, welcomed all esteemed BoS members present, and said that we feel honoured to have eminent artists/academicians of your calibre.

Dr. Vidya Kumari S explaining the purpose of the meeting and the agenda in brief said currently our School of Performing Arts and Indic Studies is offering MPA (Bharatanatyam/ Kuchipudi/ Mohiniattam/ Odissi/Kathak), BA (Performing Arts- Dance/Music/Theatre along with English and Psychology) and Diploma (Bharatanatayam/ Kuchipudi/ Carnatic Music/Odissi/Kathak/ Hindustani Music/Indology) and Certificate (Bharatanatyam/Kuchipudi/Mohiniattam). The School of Performing Arts and Indic Studies is also engaged in research leading to Ph. D in Performing Arts. This year the School will generally follow the syllabus set by the eminent members of the Board last year. However there are minor modifications in the syllabus of MPA and BA (BAEP) are proposed to suit the requirement of the current trends. We therefore, look forward for your kind input to carry out these responsibilities effectively and efficiently and impart quality education to our students. The agenda were then taken up for discussion and decision.

Agenda 1: Preparation of Scheme of Instruction and detailed Curriculum of MPA in Bharatanatyam/Kuchipudi/Mohiniattam/Odissi/Kathak

Dr. Vidya Kumari S, Chairperson of the Board explained that the MPA in Bharatanatyam, Kuchipudi are being offered from the year 2017-18 and Mohiniattam, Odissi are being offered by REVA University from 2019-20. The syllabus has been prepared by the Board of Studies in Performing Arts and the same is being adopted. Hence the matter is placed before the Board with a request to set the curriculum and work out the credits pattern for L:T:P of education for MPA in all the dance forms offered as mentioned above. The Board members appreciated the initiative of School of Performing Arts and Indic Studies efforts and they worked out the curriculum and credits pattern for L:T:P of education for both the MPA programs and resolved as under.

Resolution:

Scan with **Fast Scan**

have happened and the Board members along with the Chairman have come to the finalization of the curriculum for the Diploma programs syllabi.

However, the Director has the authority to modify the syllabus if the changes in the syllabus are less than 20% without the consent and the approval of the BoS members and without conducting a BoS meeting afresh.

Resolution:

All members of the Board of Studies in Performing Arts unanimously resolved and modified the syllabus of Diploma and Certificate being offered by REVA University. The Board also resolved to recommend to the University to adopt modified Scheme of Instruction, Scheme of Examination and detailed Syllabus of Diploma program (**Annexure III**) from the Academic Year 2021-22

Agenda 4:

Any other matter with the permission of the Chair

The Chairperson said that the School of Performing Arts and Indic Studies in REVA University called upon the members to give their input to take the School forward and offer quality education in Performing Arts. The members discussed various issues and approved the following modifications.

1. Introduction of Contemporary composers' work for the UG Music syllabus.
2. Minor changes made in the theatre course papers, English and Psychology papers that are offered at the UG level.
3. Minor changes in the Practical courses syllabi for the MPA program of the already existing Bharatanatyam, Kuchipudi, Mohiniattam and Odissi.
4. Music paper of III Semester and IV Semester of MPA program in dance is integrated with the practical papers of dance.
5. The course codes and credit structures for the courses of I semester MPA and BA programs were changed as per the rules and regulations of REVA University.
6. The course code and credit structure for the language courses was reduced from 4 to 2 to balance the credit structure of the B.A. program and to ease out the allocation of

Scan with Fast Scan

curriculum. Accordingly, the syllabus has been modified and it was decided that the semester end examination question paper will be set for 50 marks.

Agenda 5:

The Chairperson of the Board has put forward the new eligibility criteria that the School would propose for the Diploma program as follows:

1. The minimum eligibility for the Certificate program is 14 years and above.
2. For the dance practitioners who are above 20 years of age and do not possess an SSLC certificate, the minimum eligibility is to have a Certificate in their chosen art form.

The Chairperson explained that this change in the eligibility criteria has been proposed keeping in view the pandemic situation and this change in the eligibility criteria will encourage many dancers to take up this course and gain certificates in the Certificate and Diploma programs which will further improve their chances of getting into jobs of teachers in Schools and Colleges.

Resolution:

The Board unanimously appreciated this change in the eligibility criteria and approved the same. The members noted that this will help the artistes to hone their skills in performing arts irrespective of their educational background.

At the end the Chairperson of the Board of Studies, Dr Vidya Kumari S expressed her gratitude to all the members for having spared their valuable time and given their inputs to all the programs being offered by the University. The meeting was then concluded.

Chairperson
Dr. Vidya Kumari S
Director and Professor
School of Performing Arts and Indic Studies
REVA University
Bangalore
02.06.2020

Scan with Fast Scan

REVA UNIVERSITY
Bengaluru, India

SCHOOL OF MANAGEMENT STUDIES

Proceedings of the Board of Studies (BOS) Meeting held on 29th May 2021 at 2 pm , Virtually using M S Teams

Agenda:

1. Presentation of course matrix of UG and PG.
2. Approval of Course work curriculum for Ph.D.
3. Regarding Specializations for UG and PG
4. Regarding New Coding Pattern – Course Codes
5. Open electives for UG and PG.- Courses and Credit – UG and PG
6. Any other matter with permission of chair.

MEMBERS PRESENT

1.	Dr.M Dhanamjaya	**Vice - Chancellor**
2.	Dr. Shubha A	Chairperson
3.	Dr.M Subramanyam	Member
4.	Dr. P.Narayana Reddy	External Member
5.	Dr.Ramana Gujaral	External Member
6.	Dr.Divakar Naidu B	Member
7.	Dr.S.K.Prasad	Member
8.	Dr.M Lokanadha Reddy	Member
9.	Dr.Anshu rani	Member
10.	Dr.Nitu Ghosh	Member
11.	Dr Subhashree Kar	Member

Proceedings:

At the outset Dr.Shubha A, Director, School of Commerce and Management Studies, REVA University welcomed the members of BOS for the deliberations. She highlighted information related to curriculum design to the members with the brief up regarding the process of continuously updating the curriculum as per the industry requirements.

The BOS members were highlighted about the expectations of REVA University with respect to Curriculum designing. The curriculum discussed and designed should emphasize on lifelong learning with adoption of technology. It should also include life skills, self-learning, Social and Ethical component which are introduced as non-audit courses. The curriculum so designed should provide include more skill oriented courses, which will enable students to become more employable or start a Business enterprise of their own, She also discussed about the initiatives taken by the University regarding grooming the students with all industrial requirements and by imparting employability skills in the due course of their stay.

Dr.M Dhanamjaya, Vice-Chancellor, REVA University mentioned about how industry Oriented the syllabus of all programs are and also mentioned about the progressive phase of REVA University.

The detailed discussions were held as per the agenda points:

Agenda No. 1 ***Presentation of course matrix of BBA (II), BBA (H) and MBA***

***a) Presentation of course matrix of BBA (II)*:** The discussion began with BBA syllabus. The following issues were discussed

(Annexure-I)

Resolution: The members of the BOS discussed in detail about syllabus for BBA (II) Program. The members deliberated on Structure and Syllabus of BBA (II) and checked the contents of specialization courses offered noticed that there are no modifications needed, hence the syllabus was approved as it is without modifications.

Members approved the credit structure of BBA – Industry Integrated-120 credits, Inclusive of language courses up to fourth semester and also non-audit courses. The Board members appreciated the number of credits and mentioned that the courses are well chosen.

b) Presentation of course matrix of B.BA (H): **(Annexure-II)**

Resolution: The members of the BOS discussed in detail about syllabus for BBA (H) Program. The members are deliberated on Structure and Syllabus of BBA (H) with DUAL SPECIALIZATION being introduced at Undergraduate level like

- ✓ Talent Management and Marketing
- ✓ Banking and Finance
- ✓ Strategy and Leadership
- ✓ New Venture Planning and Family Business Management

Members approved the changes of credit structure (BBA-H-152 credits), Inclusive of language courses up to fourth semester and also non-audit courses. The Board members appreciated the number of credits and mentioned that the courses are well chosen.

c) Presentation of course matrix of BBA (Entrepreneurship):

The members of the BOS discussed in detail about syllabus for BBA (Entrepreneurship) Program. The members deliberated on Syllabus of BBA (Entrepreneurship), noticed that there are no modifications needed, hence the syllabus was approved as it is without modifications for 2019 and 2020 batches .Since for 2021 batch the specialization New venture planning and FBM is introduced in Honors therefore a separate BBA – E program will NOT be offered

d) Presentation of course matrix of MBA **(Annexure-III)**

Resolution: Members discussed and deliberated in length about the MBA curriculum and appreciated DUAL SPECIALIZATION being offered in emerging domains , where students can select two specializations and in each of the selected domains they will be provided with THREE courses each (Total SIX elective courses in 3rd Semester) and THREE courses each (Total SIX elective courses in 4th semester).The present curriculum also includes one Skill development course for every semester, which will enable the students to get Jobs/Start Business as a non-audit courses.

As per the AICTE Norms 102 credits should be there for MBA program, accordingly syllabus has been structured and noticed that there are no modifications needed, hence the syllabus was approved as it is without modifications. The Board members appreciated the number of credits and mentioned that the courses are well chosen.

Changes in the nomenclature and syllabus were recommended in the following courses which was reviewed by the BOS and approved

- ✓ Product and Brand Management – Was changed to Strategic Brand Management – Specialization course of Marketing specialization (Syllabus is attached)
- ✓ HR tools and Analytics – HR specialization course – 4 semester MBA – Content has been revised

Agenda No. 2 ***Approval of Course work curriculum for Ph.D. – 2021 batch*** **(Annexure-IV)**

Resolution: After thorough discussion the members, approved the course work syllabus for Advanced Research Methodology and Ethics in Research and Publication Courses for EIGTH batch Ph.D. scholars of Management studies

The BOS members highlighted the importance of Course work and suggested that Operational concepts to be stressed upon by the research guide to ensure that the student understands the area of research in detail. It was stressed that more focus should be laid upon the research area by laying importance on macro aspects. The members felt that there is no need of any change in the proposed syllabus for the EIGTH batch of PhD Scholars.

Agenda No. 3: ***Regarding Specializations offered for UG and PG***

Resolution: After thorough discussions and deliberations the specialization streams to be offered was decided for the following programs offered by School of Management Studies

BBA – Industry Integrated Program

Specialization to be offered

- ✓ Finance
- ✓ HR

- ✓ Marketing

The above mentioned specializations will be opted by students who are pursuing BBA – Industry Integrated Program and specialization courses will be introduced in 4th and 5th Semester Respectively, Students opting for BBA – Industry Integrated Program will be entitled only for single specialization and in the specialization stream opted TWO courses will be offered in 4th Semester and TWO courses will be offered in 5th semester carrying 3 Credits each

BBA – Honors Program

Specialization to be offered

- ✓ Talent Management and Marketing
- ✓ Banking and Finance
- ✓ Strategy and Leadership
- ✓ New Venture Planning and Family Business Management

The above mentioned specializations will be opted by students who are pursuing BBA – Honors Program and specialization courses will be introduced in 4th and 5th Semester Respectively, Students opting for BBA–Honors Program will be entitled for DUAL specialization and in the specialization stream opted FOUR (two courses in each of the stream) courses will be offered in 4th Semester and FOUR (two courses in each of the stream) courses will be offered in 5th semester carrying 3 Credits each

MBA Program

Specialization to be offered – Combination of any TWO specialization

- ✓ Finance
- ✓ HR
- ✓ Marketing
- ✓ International Business
- ✓ Operations Research
- ✓ Innovation and Entrepreneurship

- ✓ Strategy and Leadership

The above mentioned specializations will be opted by students who are pursuing MBA - Program and specialization courses will be introduced in 3rd and 4th Semester Respectively, Students opting for MBA –Program will be entitled for DUAL specialization and in the specialization stream opted THREE courses (in each of the stream opted) will be offered in 3rd Semester and THREE courses (in each of the stream opted) will be offered in 4th semester carrying 3 Credits each.

Agenda No.4: ***Introduction of New Coding Pattern – Course Codes***

Resolution: As per the decision taken by the University the Coding pattern was newly adopted reflecting the School, Program, year and so on giving more clarity and meaning for the coding pattern

Agenda No. 5: ***Open electives for UG and PG.***

Resolution: After through discussion, the members present approved the open elective subjects. I.e. Introduction to Management for Post graduate students and Career Planning and Development and Ethical Values for Business for UG.

Agenda No. 6: ***Any other matter with the permission of the Chair***

Resolution: To ensure smooth and successful delivery of all courses was stressed upon. It was suggested that the online certification courses be industry oriented and should add value to the program. The calendar of events for the Semesters I , III and V of BBA/ BBA(H) /BBA (E) and I, III MBA was approved.

BOS members appreciated REVA University for switching over from offline to online teaching during this pandemic situation and conducting online exams and announcing the results on time.

The meeting ended with vote of thanks by Dr.Shubha A, Director, School of Commerce and Management Studies,

Chairperson
Dr Shubha A
Professor and Director
Faculty of Commerce and Management Studies
REVA University, Bangalore

Director
School of Management Studies
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru- 560 0

REVA UNIVERSITY
Bengaluru, India

SCHOOL OF MANAGEMENT STUDIES

BOARD OF STUDIES

Proceedings of the Board of Studies (BOS) Meeting was conducted virtually using MS teams On 29th May 2021 at 2 pm

Members Presnt:

Sl. No	Name of the Member	Designation	Signature
1.	Dr. M. Dhanamjaya Vice Chancellor REVA University registrar@reva.edu.in +91-80-66226622	Vice Chancellor	Virtually attended
2.	Prof. Shubha A Director School of Commerce and Management, REVA University 8095491949 dir.comm@reva.edu.in/ shubha@revainstitution.org	Chair-Person	Virtually attended
3.	Dr.M.Subramanyam Associate professor School of Management Studies , REVA University drmutyala@reva.edu.in 9632390819	Member	Virtually attended
4.	Prof. Narayana Reddy Group Director, Sanskrithi Group of Institutions, Puttaparthi, Anantapur, Andhra Pradesh. 515134. Cell: 73493 37819, 9440117409. Email: groupdirector@sseptp.org profpnr@yahoo.co.in 9440114709	External Member	Virtually attended
5.	Prof.Tyaga Raju Dean, Department of Management Rani Chennamma University 9448697046 thyagaraj1121@gmail.com	External Member	Virtually attended
6.	Dr. Ramana Gujral Professor & Regional Director,	External Member	Virtually attended

	EDII, 5th Block, Rajaji Nagar, Bengaluru-560010, KA South – Bengaluru Region.		
7.	Dr.Divakar Naidu B Associate professor School of Management Studies , REVA University divakar.naidu@reva.edu.in 9448011758	Member	Virtually attended
8.	Dr. S K Prasad Professor School of Management, REVA University skprasad@reva.edu.in 9739731827	Member	Virtually attended
9.	Dr Subhashree Kar Professor School of Management Studies REVA University subhasree.kar@reva.edu.in	Member	Virtually attended
10.	Dr.Nitu Ghosh Assistant Professor School of Management Studies nitughosh@reva.edu.in 9845108905	Member	Virtually attended

Dr. Shubha A

Director

School of Management Studies

School of Management Studies
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru- 560 064

Course Title : STRATEGIC BRAND MANAGEMENT

Course Code: M20MB3260

Course Description: The course aims to help students gather knowledge and develop skills to be able to effectively engage in the field of sales and marketing with the appropriate use of product brand management concepts.

Course Objectives: The objective of this course is to:

1. Understand the concepts related to brand product management
2. Understand the concepts of customer analysis and brand development.
3. Understand the concepts of brands and various elements of branding.
4. Discuss about the brands in different sectors and expose them to the concept of brand imitation.

Course Outcomes: On successful completion of this course students shall be able to:

CO1: Analyze the product planning process and the various factors impacting changes in brand management.

CO2: Analyze the stages of brand development and reasons for failure of new brands.

CO3: Articulate the elements of branding and the importance and significance of brand equity.

CO4: Identify brand extension and branding strategies in different sectors.

Course Pre-requisites: Basic understanding about Branding and Marketing Management

Pedagogy: Direct Method, ICT, Case study

LTP: 2:1:0

Course type: SC

Contact Hours: 39

Units	Detailed Syllabus	Contact hours	CO
Unit-1	**Brand and Brand Management** Brands and Brand Management – What is Brand? Why do Brands Matter? Can anything be Branded? What are the strongest Brands? Branding challenges and opportunities. Brand Equity concept, Strategic Brand Management Process. Developing a Brand Strategy - Customer Based Brand Equity and Brand Positioning.	9 Hours	CO1
Unit-2	**Developing a Brand Strategy** Brand Resonance and the Brand Value Chain – Building strong Brand, Brand Value chain. Choosing Brand elements to Build Brand Equity – Criteria for choosing Brand elements, Options and tactics for Brand elements, putting it all together. Designing Marketing Programs to Build Brand Equity – Product strategy, pricing strategy, Channel strategy.	10Hours	CO2

Unit-3	**Designing and Implementing Brand Marketing programs** Integrating marketing Communications to Build Brand Equity – The new media environment, Four major marketing communications, Brand amplifiers, Developing integrated marketing communication programs. Branding in Digital Era – Key issues, Brand engagement, Digital communications, Overview of social media paid channels, Mobile marketing, Influencer marketing and social media celebrities, Content marketing, Brand Management structure. Leveraging Secondary Brand Associations to Build Brand Equity	10Hours	CO3
Unit-4	**Measuring and Interpreting Brand Performance** Developing a Brand Equity measurement and Management system, Measuring Sources of Brand Equity: Capturing Customer Mind-set, Measuring Outcomes of Brand Equity: Capturing Market Performance Designing and Implementing Brand Architecture strategies.	10Hours	CO4

References:

- Keller, K. L Strategic brand management: Building, measuring, and managing brand equity. Pearson Education India
- Strategic Brand Management, Building, Measuring and Managing Brand Equity, 5th Global Edition - Kevin Lane Keller and Vanitha Swaminathan.

Director
School of Management Studies
REVA University
Rukmini Knowledge Park, Kattigenahalli
Yelahanka, Bengaluru- 560 064

M.Sc BT

REVA UNIVERSITY
BENGALURU · INDIA

School of Applied Sciences
Department of Biotechnology

Ref: RU/BOS/Bio-Tech/2021-22 20.04.2021

Proceedings of the Virtual Meeting of the **BoS in School of Applied Sciences** held on April 20th 2021 at 10:00 AM through MS Teams Platform.

Program: M.Sc. (Biotechnology)

Biotechnology Panel Members Present:

Sl. No	Name, Designation & Affiliation	External/Internal member
1	Prof. Shilpa B.R Deputy Director, School of Applied Sciences Associate Professor and HoD, Department of Biotechnology REVA University	Chairperson
2	Prof. Dr. Padma Thiagarajan Professor, School of BioSciences and Technology (SBST) Vellore Institute of Technology Vellore, Tamil Nadu	External Academic Member
3	Dr. Shailesh Kumar Staff Scientist II NIPGR, New Delhi, India	External Academic Member
4	Dr. Nellaiah Hariharan Head, R & D and Training, Bangalore Biotech Labs. Pvt. Ltd. (BiOZEEN)	External Industry Member
5	Dr. Kumar Shankaran Founder and CEO Leucine Rich Bio Pvt. Ltd.,Bangalore	External Industry Member
6	Prof. Renuka Madhu Associate Professor Department of Biotechnology School of Applied Sciences REVA University, Bangalore, Karnataka, India	Internal Member
7	Dr. Ligi Milesh Assistant Professor Department of Biotechnology School of Applied Sciences REVA University, Bangalore, Karnataka, India	Internal Member
8	Gokul S Bajaj HOD, Biotechnology Department, Brijlal Biyani Science College, Amravati, Maharashtra	Alumni Member

Proceedings

At the outset, Prof Shilpa BR welcomed the BoS Panel members and gave presentation on the major changes made in the MSc curriculum as per the new UGC guidelines. Chairperson explained the major revision with respect to reduction in the credits from 96 to 90 for MSc BT program. Other points briefed were the inclusion of Inter Disciplinary Electives (IDE) and Skill Enhancement Courses with modules in Skill Development Program. Then the agenda was taken up for further discussion.

Agenda-: 1

Discussion on Scheme on instruction, Currriculum and consolidation of credit hours

Prof. Renuka Madhu, presented the new course matrix and syllabus details to the board of members. Further reviews and discussions were carried out on the new changes incorporated with respect to reduction in credits, inclusion of IDE and Skill enhancement course.

Resolution:

Panel members gave valuable inputs regarding the structuring of the courses to be offered semester wise.

1. The panel suggested to convert Biostatistics and Research Methodology to hard core paper and offer it in the first semester with a lab component.
2. Minor restructuring of courses such as Entrepreneurship (SC) and Food Science & Technology (SC) were suggested by the panel.
3. Molecular Genetics paper was advised to be merged with Cell Biology course omitting the developmental biology portion.
4. Skill Enhancement course of 2 credits and Skill Development Program as mandatory course without credits in terms of Soft Skill training were incorporated in the curriculum.
5. Two courses (Soft Core) Forensic Biology and Genomics and Proteomics were removed from the curriculum, the core content of Genomics and Proteomics were integrated in Bioinformatics course which was converted to Hard Core. Organic Farming (OE) of 4 credits were reduced to 2 credit course with 26hrs of Lectures.
6. As per new UGC guidelines the credit hours for practical is reduced to 2 credits for 4 hour for all laboratory courses (previous 4 credits for 4 Hours)

Agenda-2:

Preparation of Panel of Examiners

The Chairperson requested the Internal Board Members to prepare the Panel of Examiners for the M.Sc. Biotechnology program for the odd and even semester examination. The Board after deliberations prepared the panel of examiners for the M.Sc. Biotechnology program and resolved as under.

Resolution:

The Board prepared the Panel of Examiners (internal and external) for the odd and even Semester End Examinations of the M.Sc. (Biotechnology) and resolved to send the same to the Controller of Examination in a sealed cover.

Agenda 3:
Eligibility Criteria for admission to M.Sc. (Biotechnology Program)

The members discussed the required skill and subject knowledge to take up master's degree program in Biotechnology. After detailed discussion the Board resolved as under.

Resolution:
The Board unanimously recommended the following eligibility criteria for candidates seeking admission to M.Sc. (Biotechnology) program in REVA University.

Eligibility Criteria:
1. Bachelor's degree of three years with Biology or any other life science subject/Agriculture related subject as one of the cognate / major / optional subjects with 60% (40% in case of candidates belonging to SC/ST) of marks in aggregate from any recognized University / Institution or any other qualification recognized as equivalent thereto.

Deputy Director
School of Applied Sciences
REVA University, Rukmini Knowledge Park
Kattigenahalli, Yelahanka, Bangalore - 64

Prof. Shilpa B R (Chair Person)
Deputy Director
School of Applied Sciences
Associate Professor and Head
Department of Biotechnology
REVA University, Bangalore-560064

Date: 10.04.2021

REVA UNIVERSITY
Bengaluru, India

REVA UNIVERSITY

SCHOOL OF ALLIED HEALTH SCIENCES

PROCEEDINGS OF BOS MEETING

Meeting of the Board of Studies for M.Sc. Biochemistry, programme under REVA University was organized virtually through Microsoft teams on 10th April 2021 at 2.00 pm At the outset, the Chairperson welcomed all the members present and requested the members to provide their suggestions on the syllabus contents according to the students' career prospective in the field of Clinical Diagnostic services, health care sectors, industries and also emphasized on curriculum flexibility.

Sl.No.	Members name	Position	Sign.
1.	**Dr.Jayashree S** Professor and HOD School of Biochemistry, REVA University jayashree.s@reva.edu.in	**Chairperson**	
2.	**Dr. U.V Babu,** Head, Research and Development, Himalaya Drug Company, Yeshwanthpur, Bangalore. dr.babu@himalayawellness.com	**External member**	
3.	**Dr. C S Vivek Babu** Principal Scientist, CFTRI , Mysore vivekbabu.cs@cftri.res.in 9448581704	**External member**	
4.	**Dr. Keshamma E** Assistant Professor of Biochemistry, Maharani Cluster University, Palace Road, Bangalore keshamma76@gmail.com 8660688950.	**External member**	
5.	**Dr.V.Veera Raghavan** Professor, School of Biochemistry, REVA University veera.raghavan@reva.edu.in 880241577	**Internal member**	
6.	**Dr. Ramesh Kumar Kushwaha** Assistant Professor, School of Biochemistry, REVA University rameshkumar.k@reva.edu.in	**Internal member**	

REVA UNIVERSITY
Bengaluru, India

	8004425060		
7.	**Dr. Karthi Natesan** Associate Professor, School of Biochemistry, REVA University karthi.n@reva.edu.in 9884210099	**Internal member**	
8.	**Dr. Satish Kumar Murari** Assistant Professor, School of Biochemistry, REVA University satishkumar.m@reva.edu.in 9686088514	**Internal member**	

The following modification /changes in the syllabus contents were done as per the new credit pattern of REVA University regulations and as per the suggestions by the members.

Laboratory– I, II, III, and IV of I semester have been changed as Molecular Biophysics and Bioorganic Preparations (Laboratory– I), Biochemical Techniques and Bio-assays (Laboratory– II), and Basics of Microbiology and Nanoscience (Laboratory – IV). The content of the course in all the four laboratory practical syllabus in the I semester have been updated with few basic experiments to make the students to be well trained with the hands on experiments.

Few changes were made on the contents of practical syllabus of II semester, Sequence of the laboratory has been changed, Protein Chemistry has been removed and few experiments in protein chemistry like protein estimation, Western Blotting experiments has been incorporated in Immunology (Laboratory– V), Molecular Biology (Laboratory – VI) have been included with few group experiments and demonstration. Genomic analysis tools have been included in Bioinformatics (Laboratory – VII). All the BOS members appreciated and (Internal and External) approved the syllabus

Chairman

School of Applied Sciences (Biochemistry)

REVA University.

REVA UNIVERSITY SCHOOL OF BIOCHEMISTRY

REVA University

School of Applied Sciences

Proceedings of the Meeting of the Board of Studies

Date: 30th April-2021

Venue: MS teams

Time: 1:30 PM to 4:30PM

Members Present

Sl. No.	Name of Members	Designation
1.	**Dr. D V Sunitha**	Chairperson
2.	**Prof. Chandrabhas Narayana** FRSC FNASc FASc Chairman and Professor Chemistry and Physics of Materials Unit Jawaharlal Nehru Centre for Advanced Scientific Research Jakkur P.O., Bangalore 560064 INDIA	External Member
3.	**Dr.Manohar Rao** Principal Product specialist Perkin Elmer India Pvt Ltd	External Member
4.	**Dr.K.M. Eshwarappa** Associate Professor Davengere University, Davangere, Karnataka Holenarsipura 573211 Hassan, Karnataka	External Member
5.	**Dr. Madeshkumar**	Internal Member
6.	**Dr. ~~JaydevPattar~~** Jayadev Pattar	Internal Member
7.	**Dr. P Anjaneyulu**	Internal Member
8.	**Dr.Upendra Kumar** K.	Internal Member
9.	**Dr. K.Munirathnam**	Internal Member
10.	**Mr.Rahul Patel**	Student representative

Scanned with OKEN Scanner

PROCEEDINGS

At the outset, Dr. D.V.Sunitha, Chairperson of the BOS in Physics welcomed all the members present, explained the purpose of the meeting and the agenda in brief. Then, the agenda were taken up for discussion.

Agenda: Revision of M.Sc. Syllabus for the academic year 2021-2023, As per the New Education policy the total credits for M.Sc program is reduced from 96 to 92. Were the credits as been transferred from the courses offered under RULO. And few up gradation of content has been made and the same as been given below

1. In CLASSICAL MECHANICS(M21PH1020):
   - Special Theory of relativity: Galilean Transformation, Principle of relativity and speed of light, Lorenttz Transformations and its consequences have been removed from syllabus.
2. In Solid state physics -I(M21PH1050):
   - The following topics have been removed,
   - From Unit-1, Diffraction of waves by crystals using neutrons, electrons,
   - From Unit-2, viscoelastic behavior, Fracture of materials – ductile and brittle fracture – ductile, brittle transition
   - From Unit-3, Quasicrystals
   - From unit-4, High frequency behavior of superconductor
3. Fundamentals of C and Python programming of 2 credits course has been included under Skill development program in I semester (M21PH1060).
4. In General physics lab-1 (M21PH1060),
   Determination of work function of filament of a directly heated diode and hence verify the Richardson and dushman equation is added.
5. LabView introduction and interfacing is a non credit course included under Skill development course in semester II.

Scanned with OKEN Scanner

6. Nano materials and its Properties a 2 credit course has been included as an interdisciplinary course in semester II.

As per the guidelines from the government of India, A soft core subject NCC has been introduced for upcoming academic year 2021 – 2023.

The revised syllabus copy of M.Sc (Physics) program for the Academic Year 2021-2023 is attached.

Annexure I.

Resolution:

The members of the BOS in Physics prepared the revised syllabus of M Sc Physics program and unanimously resolved to recommend to the University to adopt the revised and detailed syllabus of M Sc Physics program (**Annexure I**) from the Academic Year 2021-2023.

Agenda 2:

The evaluation of project and conduction of examination was discussed.

Agenda 3:

Any other matter with the permission of the Chair

-nil-

At the end the Chairperson thanked all the Members for having spared their valuable time and also for their active participation and inputs given in the meeting.

The syllabus can be altered upto 20% with the permission of BOS chair

Chairperson

BOS in Physics, REVA University

HEAD OF THE DEPARTMENT
SCHOOL OF PHYSICAL SCIENCES
REVA UNIVERSITY
KATTIGENAHALLI YALAHANKA
BANGALORE -560064

Registrar
REVA University
Bengaluru - 560 064

Scanned with OKEN Scanner

REVA UNIVERSITY
Bengaluru, India

School of Applied Sciences

Department of Chemistry

M. Sc. (Chemistry)

Proceedings of the BOS in Chemistry (PG)

2021-22

Rukmini Knowledge Park,

Kattigenahalli, Yelahanka, Bangalore - 560 064

Phone No: +91-080-66226622, Fax: 080-28478539

Rukmini Educational
Charitable Trust

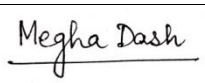
www.reva.edu.in

Proceedings of the REVA University, Bangalore-560 064, India.

Proceedings of the Meeting of the Board of Studies in Chemistry held on 23rd April 2021 through Virtual meeting on MS-Teams

Members Present:

Sl. No.	Name and Position	Designation	Signature
1	**Dr. N. Ramesh** Dean-Science and Technology REVA University Ph: +91-9880514718 E-mail:dean.tpp@reva.edu.in	Chairperson	
2	**Dr. Arun Kumar Gupta** Research Director, Syngene International Limited, BBRC A Biocon Group, Bangalore Akg1966@yahoo.com Ph: +91-9731133411	External Member (Industry-organic chemistry)	
3	**Dr. Shivaraj Y.** Associate Professor Department of Chemistry Bangalore University Ph 9972001267 E-mail : shivaraj_y@rediffmail.com	External Member	
4	**Dr. Madhusudana Reddy M. B.** Assistant Director and Professor School of Chemical Sciences REVA University Ph:+91-9480224757 E-mail: madhusudana@reva.edu.in	Internal Member	
5	**Dr. SakthivelKandaiah** Associate Professor School of Chemical Sciences REVA University Ph:+91-9742585588 E-mail: sakthivel@reva.edu.in	Internal Member	
6	**Dr. Lakshmi B** Associate Professor School of Chemical Sciences REVA University Ph:+91-9902632762 E-mail:lakshmib@reva.edu.in	Internal Member	

7	**Dr. Nagendra G.** Assistant Professor School of Chemical Sciences Reva University Ph:+91-9844722805 E-mail: nagendra.g@reva.edu.in	Internal Member	
8	**Miss. Megha Dash** R18MCH010	Alumni student 2018-20 batch	

At the outset, Dr. N. Ramesh, Chairperson of the BOS in Chemistry welcomed all the members present, explained the purpose of the meeting and the agenda in brief. Then, the agenda were taken up for discussion.

Agenda-1: Approval of Scheme & Syllabus M.Sc. Chemistry program.

The Chairperson explained to the members that the M.Sc Chemistry programme was introduced in REVA University in 2017-18 and revised twice in 2018-19 and 2020-21 as per the suggestions of members of the BoS. The University has taken a decision to further revise the syllabus in accordance to the new scheme, credit distribution, concepts pertaining to the Research and Innovation as well as to Online teaching learning process in the COVID-19 pandemic situation. The number of credits is reduced from 96 to 90. Therefore, revised draft scheme and syllabus of M.Sc Programme incorporating these modifications has been prepared by the core group of faculty members by internally conducting several group discussions and meetings in the school, and is placed before the BoS members for consideration and decision. He invited the inputs from the members and requested to contribute to enrich the quality of M Sc (Chemistry) program being offered by REVA University.

The members having examined the scheme and syllabus of the program, made the following observations and suggestions:

1. The total credits reduced from 96 to 90 for 2021-22 MSc chemistry program
2. To distribute the Core courses (Hard cores) and Soft cores/DSEC to all four semesters as per the student's choice.
3. Introduction of ability enhancement courses (AECC) in first and second semester to enhance the knowledge towards industrial research and development.

4. To introduce some of the basic concepts in to the first semester, as the beginners should know the basic concepts.
5. To restructure certain topics of higher semesters to have continuity with previous semesters and strengthen the foundation knowledge.
6. Introduction of non-credit skill development courses as a part of the University Curriculum
7. Introduction of school specific interdisciplinary open electives in second semester
8. To facilitate the students to develop the knowledge of soft skills, introduction of Skill Development Classes-which enables to student industry and research.
9. To strengthen the syllabus to emphasize the students to successfully clear the competitive examinations like-CSIR, UGC etc.
10. To introduce the bridging programs in the beginning of the semester to reduce the gaps between the PG programs and UG programs.
11. To motivate the students to learn independently asking students to enroll for Online Certificate Courses like - MOOC's, NPTEL, SWAYAM, Coursera, Udemy etc.
12. To introduce Add-on programs to develop the hands-on training experiences.
13. To introduce additional labs and extended lab hours to improve the experimental skill sets and instrument handling ability of students
14. To strengthen the soft-core contents with industry relevant topics and reduce the content as the number of hours/credit.
15. To modify some contents in the heterocyclic chemistry, natural products and bioorganic chemistry, medicinal chemistry, organometallic chemistry, separation techniques and analytical chemistry specialization subjects etc.
16. To introduce the structure elucidation problems in the organic spectroscopy and physical chemistry syllabus of 2nd Sem and also to introduce the same in the practicals.
17. To make minor changes in Inorganic and physical chemistry contents.
18. To reduce the softcore course contents of all semesters.
19. The final semester major project credit reduced to 8
20. To introduce new named reactions in advanced organic synthesis

The committee experts appreciated the introduction of AECC courses of Industrial research and Development and computers and mathematics for chemist as a part of curriculum. Furthermore

online certificate programs being done by the students in the LOCK DOWN period due to COVID-19 pandemic.

After detailed discussion the members of the BoS reworked and prepared the revised scheme and syllabus of M Sc Chemistry and resolved as under.

Resolution: The members of the BoS in Chemistry prepared and approved the revised scheme of instruction and detailed syllabus of M Sc Chemistry program and unanimously resolved to recommend to the University to adopt the revised Scheme of Instruction and detailed syllabus from the Academic Year 2021-23. The credit for the academic year is 90.

Agenda 2:

Softcore credit and content reduction

The Chairperson explained the reduction in the number of softcore credits

Resolution: The members of Board unanimously decided to reduce the content and introduce the important contents for the softcore specialization subjects.

Agenda 3:

Introduction of ability enhancement courses

The Chairperson explained the introduction of ability enhancement course in first and second semesters .

Resolution:

The members of board of studies appreciated the introduction of Industrial research and development course and computer and mathematics for chemist. They have given inputs to strengthen the contents.

Agenda 4:

Preparation of Scheme of Examination

The Chairperson explained the existing guidelines relating to scheme of examination/and pattern of question papers setting and requested for inputs from the members. The members after examining the guidelines decided as under.

Resolution: The members of Board unanimously decided to follow the existing Scheme of Examination and the pattern of question papers.

Agenda 5:

Any other matter with the permission of the Chair-

Modification of the Scheme of Instruction and Syllabus (2020-21) of existing M. Sc Chemistry program.

The contents of Inorganic Chemistry I, Organic chemistry II, Medicinal chemistry, Advanced organic synthesis III, Physical Chemistry II, Organometallics in organic synthesis, Practicals for III and IV sem - both organic and inorganic chemistry are modified.

Skill development courses and attending Webinars, Guest lectures/Conferences, Industry visits and In-house R&D along with online certificate programs .

Resolution: The members of Board unanimously approved the revised Scheme of Instruction and Syllabus of all semesters of M Sc (Chemistry) program and recommended to the University to adopt the revised Scheme of Instruction and Syllabus for the 2020-21 batch students.

Agenda 6:

Inclusion of new open electives-for the2021-22 batch students, in the second and third semester, Open Elective courses has been introduced and the complete syllabus was kept for discussion. The titles for the open electives

Resolution: The members of the board unanimously approved to inclusion of the OE course in the 2nd and 3rd sem for the 2021-22 batch. Members also suggested to incorporate few industrial methods in the content and were added as per their suggestion.

The members have suggested Chemistry of Food and Beverages as open elective for second semester PG students within the school.

Agenda 7:

As the school intended to offer Analytical chemistry specialization from the 2021-22 academic year along with existing organic and inorganic chemistry specializations and strengthening of the analytical chemistry subjects, soft cores in all the semesters and also inclusion of new practicals for 3rd and 4th semesters. The analytical chemistry hard core and softcore contents has been revised.

Scrutinizing the content which was updated in the previous analytical chemistry syllabus and approval for the practicals suggested.

Resolution: The members of the board thoroughly examined all the contents of the analytical chemistry syllabus of semesters 1-4, soft cores and also practicals. After their examination into the syllabus proposed/modified, the members suggested for little corrections in the hard cores of III sem first and second semesters. The practicals of the 3rd and 4th semester were approved as such and the members appreciated the content added in the syllabus. All the members of the board unanimously approved the inclusion of new practicals and updated SC syllabus and agreed to offer the specialization as per the university norms and students choice in the higher semesters to choose the analytical chemistry as their specialization.

Finally,

The existed the open elective have been replaced with Chemistry of food and beverages. New course code is assigned for all subjects. The course codes are modified according to new pattern.

The syllabus modified/revised by taking the feedback from the stake holders (students, parents, industry experts and alumni students). The chairperson of the BoS has the liberty to approve the revision of the syllabus below 20% as and when required.

At the end the Chairperson thanked all the Members for having spared their valuable time and also for their active participation and inputs given in the meeting.

Dr. N. Ramesh
Chairperson, BoS
Department of Chemistry
School of Applied Sciences,

REVA University, Bangalore-64.

Note: The detailed revision of each subject is modified in the curriculum and appended in the Hand book 2021-22.Scheme of Instructions also include for your reference.

Submitted for your kind perusal and approval

M.Sc. (Chemistry) Program

Scheme of Instructions (Effective for Academic Year 2021-22)

Sl. No.	Course Code	Course Title	Course Type	Credit Pattern and Value L				Weekly Contact Hours	Teaching School/Dept.
				L	T	P	C		
First Semester									
1	M21SM0101	Inorganic Chemistry -I	HC	4	0	0	4	4	Chemistry
2	M21SM0102	Organic Chemistry -I	HC	4	0	0	4	4	Chemistry
3	M21SM0103	Physical Chemistry -I	HC	4	0	0	4	4	Chemistry
4	M21SM0104	Analytical Chemistry- I	HC	4	0	0	4	4	Chemistry
5	M21SM0105	Computers and Mathematics for Chemist	HC / AECC	2	0	0	2	2	Chemistry
Inorganic chemistry									

6	M21SMS101	Introduction to Nano-science and Nanotechnology - I.1	SC*	2	0	0	2	2	Chemistry
Organic Chemistry									
7	M21SMS102	Heterocyclic Chemistry and Chemistry of Bio-Molecules - I.2	SC*	2	0	0	2	2	Chemistry
Physical Chemistry									
8	M21SMS103	Surface, Interfaces and Catalysis - I.3	SC*	2	0	0	2	2	Chemistry
Analytical Chemistry									
9	M21SMS104	Advanced Instrumental Methods of Analysis- I.4	SC*	2	0	0	2	2	Chemistry
Practical Courses									
10	M21SM0106	Organic Chemistry Practicals-I	HC	0	0	2	2	4	Chemistry
11	M21SM0107	Physical Chemistry Practicals-I	HC	0	0	2	2	4	Chemistry
Total				20	0	4	24	30	
Note:*Students shall choose any ONE DSEC*- Soft Core (SC) out of Four Soft Core Courses									
Second Semester									
1	M21SM0201	Inorganic Chemistry -II	HC	4	0	0	4	4	Chemistry
2	M21SM0202	Organic Chemistry -II	HC	4	0	0	4	4	Chemistry
3	M21SM0203	Physical Chemistry -II	HC	4	0	0	4	4	Chemistry
4	M21SM0204	Organic Spectroscopy	HC	4	0	0	4	4	Chemistry
5	M21SM020	Challenges in Industrial	HC /	2	0	0	2	2	Chemistry

	5	Research and Development	AECC						
Inorganic Chemistry									
6	M21SMS201	Chemistry of Life -II.1	SC*	2	0	0	2	2	Chemistry
Organic Chemistry									
7	M21SMS202	Introduction to Medicinal Chemistry-II.2	SC*	2	0	0	2	2	Chemistry
Physical chemistry									
8	M21SMS203	Advanced Chemical Kinetics and Thermodynamics-II.3	SC*	2	0	0	2	2	Chemistry
Analytical Chemistry									
9	M21SMS204	Separation and Electro Analytical Techniques-II.4	SC*	2	0	0	2	2	Chemistry
Practical Courses									
13	M21SM0206	Inorganic Chemistry Practicals -II	HC	0	0	2	2	4	Chemistry
14	M21SM0207	Analytical Chemistry Practicals-II	HC	0	0	2	2	4	Chemistry
Total				22	0	4	26	30	
Note:*Students shall choose any ONE Soft Core (SC) out of four Soft Core Courses									
Third Semester									
Inorganic Chemistry-III									
1	M21SMZ301	Advanced Inorganic Chemistry III.1	HC	4	0	0	4	4	Chemistry
2	M21SMZ302	Organometallics-III.2	HC	4	0	0	4	4	Chemistry
3	M21SMZ303	Solid state chemistry and Advanced Materials -III.3	HC	4	0	0	4	4	Chemistry
4	M21SMZ304	Structural Methods in	HC	4	0	0	4	4	

		Inorganic Chemistry-III. 4							
5	M21SMS301	Industrial Inorganic Chemistry-III.5	SC*	2	0	0	2	2	Chemistry
6	M21SMS302	Green Chemistry-III .5	SC*	2	0	0	2	2	Chemistry
7	M21SMS303	Energy and Energy Conversion Systems -III.5	SC*	2	0	0	2	2	Chemistry
8	M21SMS304	Environmental Chemistry and Applied Analysis -III.5	SC*	2	0	0	2	2	Chemistry
9	M21SMZ305	Inorganic Chemistry Practicals-III.1	HC	0	0	2	2	4	Chemistry
10	M21SMZ306	Advanced Inorganic Chemistry Practicals-III.2	HC	0	0	2	2	4	Chemistry
Organic Chemistry-III									
1	M21SMZ307	Advanced Organic Chemistry -III.1	HC	4	0	0	4	4	Chemistry
2	M21SMZ308	Advanced Organic Synthesis -III.2	HC	4	0	0	4	4	Chemistry
3	M21SMZ309	Natural Products and Bioorganic Chemistry-III.3	HC	4	0	0	4	4	Chemistry
4	M21SMZ310	Organometallic Chemistry in Organic Synthesis-III.4	HC	4	0	0	4	4	Chemistry
5	M21SMS301	Industrial Inorganic Chemistry-III.5	SC*	2	0	0	2	2	Chemistry

6	M21SMS302	Green Chemistry-III .5	SC*	2	0	0	2	2	Chemistry
7	M21SMS303	Energy and Energy Conversion Systems -III.5	SC*	2	0	0	2	2	Chemistry
8	M21SMS304	Environmental Chemistry and Applied Analysis -III.5	SC*	2	0	0	2	2	Chemistry
9	M21SMZ311	Organic Chemistry Practicals-III.1	HC	0	0	0	2	4	Chemistry
10	M21SMZ312	Advanced Organic Chemistry Practicals-III.2	HC	0	0	0	2	4	Chemistry
Physical Chemistry III									
1	M21SMZ313	Photo-physical Processes and Applications -III.1	HC	4	0	0	4	4	Chemistry
2	M21SMZ314	Fundamentals of Electrochemistry and Applications-III.2	HC	4	0	0	4	4	Chemistry
3	M21SMZ315	Advanced Physical Chemistry -III.3	HC	4	0	0	4	4	Chemistry
4	M21SMZ316	Polymer Science and Technology -III.4	HC	4	0	0	4	4	Chemistry
5	M21SMS301	Industrial Inorganic Chemistry-III.5	SC*	2	0	0	2	2	Chemistry
6	M21SMS302	Green Chemistry-III .5	SC*	2	0	0	2	2	Chemistry
7	M21SMS303	Energy and Energy Conversion Systems -III.5	SC*	2	0	0	2	2	Chemistry
8	M21SMS304	Environmental Chemistry		2	0	0	2	2	Chemistry

		and Applied Analysis -III.5	SC*						
9	M21SMZ317	Physical Chemistry Practicals – III.1	HC	0	0	0	2	4	Chemistry
10	M21SMZ318	Advanced Physical Chemistry Practicals – III.2	HC	0	0	0	2	4	Chemsitry
Analytical Chemistry III									
1	M21SMZ319	Advanced analytical Chemistry -III.1	HC	4	0	0	4	4	Chemistry
2	M21SMZ320	Advanced Materials Analysis and Electron Spectroscopy-III.2	HC	4	0	0	4	4	Chemistry
3	M21SMZ321	Electrochemistry and Electroanalytical Techniques-III.3	HC	4	0	0	4	4	Chemistry
4	M21SMZ322	Instrumental and Analytical Analysis Techniques –III.4	HC	4	0	0	4	4	Chemistry
5	M21SMS301	Industrial Inorganic Chemistry-III.5	SC*	2	0	0	2	2	Chemistry
6	M21SMS302	Green Chemistry-III .5	SC*	2	0	0	2	2	Chemistry
7	M21SMS303	Energy and Energy Conversion Systems -III.5	SC*	2	0	0	2	2	Chemistry
8	M21SMS304	Environmental Chemistry and Applied Analysis -III.5	SC*	2	0	0	2	2	Chemistry
9	M21SMZ323	Analytical Chemistry Practicals – III.1	HC	0	0	0	2	4	Chemistry

10	M21SMZ324	Analytical Chemistry Practicals – III.2	HC	0	0	0	2	4	Chemsitry
Open Elective #									
1	M21SMO301	Advanced Materials in Semiconductor Device Technologies	OE#	4	0	0	4	4	Chemistry to all other schools/Dept.s
2	M21SMO302	Biodiesel : An Alternative Renewable EnergySource	OE*	4	0	0	4	4	Chemistry to all other schools/Dept.s
3	M21SMO303	Chemistry of Materials	OE*	4	0	0	4	4	Chemistry to all other schools/Dept.s
4	M21SMO304	Chemsitry of Food and Beverages	OE#	4	0	0	4	4	Chemistry to all other schools/Dept.s
5	M21SMO305	Nanotechnology	OE*	4	0	0	4	4	Chemistry to all other schools/Dept.s
6	M21SMO306	Sensor Technologies: Physical Sensors, Chemical Sensors, Biosensors, Gas Sensors and their Instrumentation	OE*	4	0	0	4	4	Chemistry to all other schools/Dept.s
Soft Skills (Non Credit)									
27	M21SMM301	Internship / Skill Development	RULO	0	0	-	-	2	Chemsitry/Training & Placement
Total				20	0	4	24	30	

Note:

i) *Students shall choose any ONE Soft Core out of FOUR Soft Core Courses in all specialization.

ii) #Open Elective (OE) is offered for students other than chemistry discipline. The students of MSc Chemistry shall choose open elective from other disciplines.

Fourth Semester									
1	M21SM0401	Major Project	HC	0	0	8	8	20	Chemistry
2	M21SMS401	Functional inorganic materials	SC*	2	0	0	2	2	Chemistry
3	M21SMS402	Advanced functional organic materials							
4	M21SMS403	Advanced spectroscopy and applications in structural analysis							
5	M21SMS404	Advanced electroanalytical techniques							
6	M21SMS405	Advances in surface, interface and Catalysis							
7	M21SMS406	Advanced materials in energy storage and conversion devices							
8	M21SMS407	Advances in polymer science and technology							
9	M21SMON1	MOOC/SWAYAM/HARVARD/EDX/ Internship/Attending Conferences/Webinars/Industrial Visit/ In-House R&D, etc. (All Semester)	SEC/MOOC	4	0	0	4	4	Chemistry/ others
Practical Courses									
10	M21SMS408	Advanced organic chemistry Practicals-IV.1	SC*	0	0	2	2	4	Chemistry
11	M21SMS409	Advanced Inorganic chemistry Practicals-IV.2	SC*	0	0	2	2	4	Chemistry
12	M21SMS410	Physical Chemistry Practicals-IV.3	SC*	0	0	2	2	4	Chemistry

13	M21SMS411	Analytical Chemistry Practicals-IV.4	SC*	0	0	2	2	4	Chemistry
Total				6	0	2	16	30	

NOTE:

*Students shall choose ONE in each SC and Lab course.

A major project is compulsory and will begin in the 4th semester. Students will either choose an internal guide from the school and continue with in-house projects or choose to do project work either in an industry or research organization.

HC=Hard Core; SC=Soft Core; OE=Open Elective;

****

REVA UNIVERSITY
Bengaluru, India

SchoolofAppliedSciences

Department of Mathematics
Proceedings (Minutes) of the BoS Meeting

Date: 01/05/2021
Time: 10:30 am to2:27pm
Meeting addressed by: Dr. Vishu Kumar M

Mode of meeting: MS Teams
MOM:MOM/104/2021
Note Taker:Dr.P.Sridevi

Agenda of meeting:

BoS for B.Sc and M.Sc
Review of Scheme of Instruction and Syllabus of Mathematics and Statistics of all the B.Sc. Programs.and change in credit matrix of M.Sc (Mathematics) and introducing new inter disciplinary open elective in second semester M.Sc., from SoAS.

External BoS Members:
Dr.BiradarKashinath, principal, Govt.FirstGradeCollegeforWomen, JewaragiColony, Kalburagi 585102.
Dr.R.Sumithra,PGCoordinator&Head,ResearchCentre,AssociateProfessor,Dept.ofUG,PGstudies&ResearchinMathematics,Govt.ScienceCollege,Autonomous,NrupathungaUniversity,Bengaluru
Dr.Subramanyam T,Assistant Professor,Dept.of Mathematics,M S Ramaiah University of Applied Sciences,Bengaluru.

Internal BoS Members:
Dr.Hanumagowda BN, Dr.Murugeshan, Dr.Madhusudhana Zalki, Dr.UdayKumarKN, Dr.P.Sridevi, Dr.Brinda Halambi, Dr.RanjithaKumar, Prof.Narayana gowda.

Atendees:
Dr.Vijayachandra Kumar, Dr.Santhosh Kumar, Dr.Salma, Dr.Mohan Kumari, , , Prof.Shivakumar Pathuri.

At the outset, **Dr. Vishu Kumar M**, BoS Chairman, Assistant Director, Department of Mathematics.welcomed the team present to the meeting and addressed the following agenda:

Sir specified new syllabus has 120 credits and he requested to Dr.Vijay Chandra to share PPT and to Dr.Uday Kumar KN to present the syllabus.
Sir instructed to take note suggestions to
Mathematics:Dr.Brunda Halambi and Statistics:Dr.Mohan Kumari

BoS Panel suggestions …
B.Sc Mathematics(P.C.M,P.M.Cs&M.St.Cs) & M.Sc

Subjects titles must be syllabus oriented.

Mathematics-I

"**Recap of differentiation**" should mention

nth derivative of standard functions "**all seven**" should include

Module2:

No changes required.

Module3:

Cancel **Reduction formulae**.

Illustration of cot,sec,cosec should include

Correct printing mistake as $\int \sin^m x \cos^n x \, dx$ instead of $\int \sin^m x \sin^n x \, dx$.

In the third line it should be **integral limit** not integral sign.

Module4:

Delete **elementary matrices** in first line

In third line it must be **Gauss elimination method** not Gaussian elimination method.

Should incorporate **Gauss Jordan Method** also.

Mathematics-II

Module1:

No changes required.

Module2:

No changes required.

Module3:

For last line need to include **illustrative examples**.

Module4:

No changes required.

Mathematics-III

No changes required.

Mathematics-IV

Module1:

Rearrange the topics **Rings-Sub Rings- Fields-Sub Fields.**

Module2:

Identify P.U syllabus, separate it for recapitulation.

Module3:

In second line instead of double integration in to be changed **to change of variable in double.**

Module4:

Suggested not to include Divergence theorem and Stoke's theorem proof,**evaluation and verification to be included.**

Entire **Curve Tracing** to be removed.

Mathematics-V

Module1:

Need to incorporate **only first kind of isomorphism.**

In the last line **Direct sums** to be removed.

Module2:

In the second line image should replace by **Range.**

Module3:

No changes required.

Module4:

Numerical differentiation proof need to be included.

Inverse Lagranges Interpolation method to be incorporate.

Mathematics-VI

Module1:

In second line replace connection by **relation.**

Module2:

$\overline{a^t}$ to be removed.

In second line F(T) by **f(t).**

Module3:

Convolution theorem proof need to be included.

In second line first and second order replace by **simultaneous linear**.

Module4:

Complex form of Fourier series and harmonic analysis need to be incorporated.

Soft Core for 1st sem:

Elementary Number Theory:

In Module 1,2,3 no changes required.

Module4:

Printing mistake Euler totient not **Euler quotient.**

Soft Core for 4th sem:

Discrete Mathematics and Graph theory:

No changes required.

Complex Analysis:

In Module 1&2 no changes required.

Module3:

Cauchy's Theorem replace by **Cauchy's Integral Therem.**

Cauchy's Integral Theorem proof to be included.

Cauchy's Integral formulae for the function and derivatives need to be replace by **Cauchy's Integral formula.**

Cauchy's Integral formula proof to be added.

Module4:

Taylor's theorem and series to be replaced by **Taylor's series**.

Laurent's theorem and series to be replaced by **Laurent's series.**

Cauchy's Residue theorem proof need to be incorporated.

Operations Research:

No changes required.Title need be change.

In **Mathematics Lab1,2,3,6** no changes required.

Mathematics Lab -IV:

Experiments 13 and 14 need to be removed.

Mathematics Lab -IV:

Programs related to caliculus of variation should be removed.

STATISTICS

Dr.Madhusudhan Zalki sir started presentation

Statistics1:

Module2: This can be changed as R- programming.This chapter suitable to open elective.

Module4: Basic probability to be mentioned as recaptuation.

Reference Books:One from Python need to be include.

StatisticsI Lab:

Demonstration to be replace by **practicals using MS Excel.**

Latest **statistical software** need to replace by Python.

StatisticsII Lab:

Demonstration to be replace by **practicals using MS Excel&R-Programming.**

Sampling Theory:

This title should be replace by Applied Statistics.

SQC&Reliability:

In title reliability need to be removed.

Module1: In this Module1 restrict to only basic SQC.

Module2: It can be central chart for variable.

Module3: It can be central chart for attributes.

Module4: It can be product central only.Topic reliability can be removed.

Module4: Simulation can be removed and can be replaced in second sem.

StatisticsV:

ModuleIV: Factorial experiments confounding can be removed.

StatisticsVLab:

Demonstration to be removed in heading.

Practical using MS-Excel/R/Python can be written instead of practicals using MS-Excel.

Experiment 9&10 should be removed.

For all Statistics subjects overall suggestions:

Text Books :Fundamental of Statistics,S.C.Gupta and V.K.Kapoor book should be included.

Referrence Books:Top any five enough.

StatisticsVI:

Module1: can be introduction to OR and LPP.

Module2: Need to be changed as simplex LPP.

Topics are graphical method,simplex and Big-M method need to be incorporated.

Module3:can be Trasportation and Assignment problems.

Module4:can be Game theory

Convertion of Game problems to LPP can be added.

Text Books: Operations Research by JK Sharma and SD Sharma should be included.

StatisticsVI Lab:

Since statistics VI syllabus changed so according to theory syllabus need to change experiments.

LPP solver software if possible introduce to the students.

After that Dr.Vishu Kumar sir presented **Mathematics papers in Bio-Informatics** stream.External BoS members were satisfied with that syllabus.So there are no points to change in those subjects.

Then sir took permission from external BoS members to present **M.Sc syllabus** also.

With the permission of External BoS members Dr.Murugeshan sir started to present M.Sc syllabus and credits. Also introducing new inter disciplinay open elcive in second semester M.Sc., from SoAS for two credits.

No changes team satisfied and suggested to incorporate only licensed softwares.

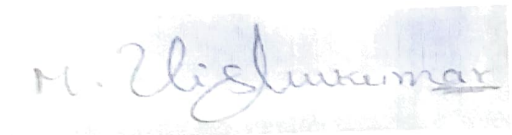
Overall suggestions by External BoS Panel:

Should incorporate all changes what the panel suggested

To get approval need to mail updated syllabus to them.

As there were no other points raised, the meeting was concluded at 2:30 pm.

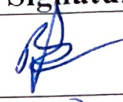
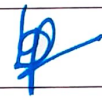
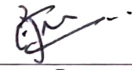
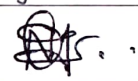
Note taker: Dr. P Sridevi



BOS Chair

(Dr. Vishu Kumar M)

BOS Internal Members

Sl.No	Name	Signature
1.	Dr. Hanumagowda B N	
2.	Dr. Madhusudhan Zalki	
3.	Dr.Murugesan.R.	
4.	Dr. Uday Kumar. K.N.	
5.	Dr.Sridevi.P	
6.	Dr. Brinda Halambi	
7.	Dr. Ranjitha Kumar	
8.	Mr. Narayana Gowda	

Re: MOM of BoS approval

Kashinath Biradar <kbbiradar@yahoo.co.in>
Sat 5/29/2021 3:11 PM
To: Vishu Kumar M <vishukumarm@reva.edu.in>

Please be cautious
This email was sent outside of your organisation

sir,
I am here to state that the meeting was held about bos there respective members has made necessary corection. Also few topics are added which gives more application research feild .
hence i give concent from my side to implement the syllabus framed in the meeting .
tq with regards
urs sincerely
Dr. Biradar kashinath
principal ,govt first grade college for womens kalburagi

On Monday, 24 May, 2021, 10:39:32 am IST, Vishu Kumar M <vishukumarm@reva.edu.in> wrote:

Dear Sir,

Kindly find here with an attachment of MOM of BoS, I kindly request you to send the signed MOM back for our proceedings.

Warm Regards

Dr Vishu Kumar M
Professor | Department of Mathematics | School of Applied Science
Mobile: +91 9845871372

REVA UNIVERSITY | Rukmini Knowledge Park | Kattigenahalli | Yelahanka | Bengaluru | Karnataka 560 064
cid:image001.png@01D60F30.4EE3D810 cid:image002.png@01D60F30.4EE3D810
cid:image003.jpg@01D60F30.4EE3D810 cid:image004.jpg@01D60F30.4EE3D810
cid:image005.png@01D60F30.4EE3D810Chat with me on Teams !

-

Disclaimer: The information transmitted, including attachments, is intended only for the person(s) or entity to which it is addressed and may contain confidential and/or privileged material. Any review, re-transmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and destroy any copies of this information.

On Monday, 24 May, 2021, 10:39:32 am IST, Vishu Kumar M <vishukumarm@reva.edu.in> wrote:

Dear Sir,

Kindly find here with an attachment of MOM of BoS, I kindly request you to send the signed MOM back for our proceedings.

Warm Regards

Dr Vishu Kumar M
Professor | Department of Mathematics | School of Applied Science
Mobile: +91 9845871372

REVA UNIVERSITY | Rukmini Knowledge Park | Kattigenahalli | Yelahanka | Bengaluru | Karnataka 560 064
cid:image001.png@01D60F30.4EE3D810 cid:image002.png@01D60F30.4EE3D810
cid:image003.jpg@01D60F30.4EE3D810 cid:image004.jpg@01D60F30.4EE3D810
cid:image005.png@01D60F30.4EE3D810Chat with me on Teams !

-

Disclaimer: The information transmitted, including attachments, is intended only for the person(s) or entity to which it is addressed and may contain confidential and/or privileged material. Any review, re-transmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and destroy any copies of this information.

Re: Syllabus for BoS approval

sumitra_diya@yahoo.com <sumitra_diya@yahoo.com>
Sun 5/30/2021 5:24 PM
To: Vishu Kumar M <vishukumarm@reva.edu.in>

Please be cautious
This email was sent outside of your organisation

Hi

I am thankful for the opportunity given to me as a BoS member for Reva University in Mathematics. I am hereby approving the syllabus sent by you.

Thanking you
Dr R Sumithra
Associate Professor
Department of UG, PG studies and Research centre
Nrupathunga University Bengaluru
Mobile no 8310246500

On May 3, 2021 9:49 AM, Vishu Kumar M <vishukumarm@reva.edu.in> wrote:
Dear Sir/ Madam

Kindly find here with an attachment of updated B.Sc., syllabus, which is modified according to the BoS members suggestions. Also find the enclosed MOM. I kindly request you to acknowledge and revert the signed copy of the MOM for approval.

Warm Regards

Dr Vishu Kumar M
Professor | Department of Mathematics | School of Applied Science
Mobile: +91 9845871372

REVA UNIVERSITY | Rukmini Knowledge Park | Kattigenahalli | Yelahanka | Bengaluru | Karnataka 560 064
cid:image001.png@01D60F30.4EE3D810 cid:image002.png@01D60F30.4EE3D810
cid:image003.jpg@01D60F30.4EE3D810 cid:image004.jpg@01D60F30.4EE3D810
cid:image005.png@01D60F30.4EE3D810Chat with me on Teams !

-

Disclaimer: The information transmitted, including attachments, is intended only for the person(s) or entity to which it is addressed and may contain confidential and/or privileged material. Any review, re-transmission, dissemination or other use of, or taking of any action in reliance upon this

information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and destroy any copies of this information.