



REVA
UNIVERSITY
Bengaluru, India

Sample POs and PSOs

School of Architecture

Program name- Bachelors in Architecture

Programme Educational Objectives (PEOs):

The architectural graduates from REVA University after 5 years of completion of the program will:

PEO 1: Demonstrate as successful professional architect with moral, ethical values and innovative ideas.

PEO 2: Serve as a leader through consultancy, extension activities and adopt lifelong learning philosophy for continuous improvement.

PEO 3. Acquire higher degrees to lead in education, research and specialized professional service.

Programme Outcomes (POs):

On successful completion of the program the student will be able to:

a. Assimilate the fundamental knowledge of history, culture, technical and legal aspects to address environmental and social needs.

b. Apply perceptive, aesthetic and creative abilities to design innovative solutions in the global context.

c. Identify and formulate a design problem by applying analytical reasoning and critical thinking.

d. Demonstrate the ability to deliver a project using contemporary techniques and tools.

e. Demonstrate effective visual, written and verbal communication skills.

f. Perform all professional responsibilities independently and as a team member with leadership skills and ethical values.

g. Develop an aptitude towards research and critical evaluation.

h. Develop the ability to choose appropriate online programmes and participate in conferences and seminars to be a life-long learner.

Programme Specific outcomes (PSOs):

On successful completion of the program the student will be able to:

PSO1- Assimilate the knowledge of Socio cultural, technical, environmental and legal aspects relevant to the design of human habitat.

PSO2-Analyse and design sustainable solutions for the built and unbuilt environment.

PSO3- Demonstrate the ability to use contemporary tools and techniques to solve real life problems related to our habitat.


Registrar
REVA University
Bengaluru - 560 064

B.Com – Industry Integrated

Program Overview

Bachelor of Commerce – Industry Integrated Program enables students to acquire knowledge and skills required by industry and business. It also equips students with knowledge of computers and various accounting, quantitative and analytical tools used in decision making. The Curriculum followed is contemporary in nature and emphasizes on issues related to current relevance. Students are offered with wide range of electives in Accounting, Finance, Banking, Insurance, Taxation and Capital markets. The program in addition to the degree offers various certification programs to enhance the knowledge sphere of the students .The Program provides holistic education to empower and enable students to take-up responsible positions in Industries /Business firms and other sectors. It provides knowledge about principles of auditing and its applications. It also gives an exposure and strong foundation to accounting tool like using tally. Further the program also has internship training and practical exposure through Major project. Students also gain hands on experience through their exposure to Business lab and improve their communication skills they are introduced to language lab.

Program Educational Objectives (PEO)

PEO 1: Graduate after successful completion of the Program will be able to take up career in Public, Private and Corporate organizations.

PEO 2: Graduates after completion of the program will be able to work with diverse teams and are expected to take better decisions in complex situations.

PEO 3: Graduates will be able to incorporate social, ethical and moral principles in professional and personal life.

Program Specific Outcomes (PSO)

PSO	Description
PSO1	Demonstrate understanding of the basic concepts and theoretical knowledge used in the different commerce and business related areas.
PSO2	Apply different tools and techniques in solving problems related to Business.
PSO3	Develop ideas for start -ups through knowledge and skills developed during the course of the degree.

Programme Outcomes :

The School of Commerce was established in the year 2014 and since then the School has defined Program Outcomes for the courses offered during the Board of Studies meeting. Based on the advice and suggestions of the BOS, EIGHT Program Outcomes have been

formulated, keeping in view the Vision, Mission and Program Educational Objectives.

Description of the Program Outcomes

PSO	Description
PSO1	Demonstrate understanding of the basic concepts and theoretical knowledge used in the different commerce and business related areas.
PSO2	Apply different tools and techniques in solving problems related to Business.
PSO3	Develop ideas for start -ups through knowledge and skills developed during the course of the degree.

PO	Description
PO1	Apply knowledge of Theory and Practices to solve business problems
PO2	Foster Analytical and critical thinking abilities for data – based decision making
PO3	Ability to develop Value based leadership Ability
PO4	Ability to understand , analyse and communicate global , economic, legal and ethical aspects of business
PO5	Gain knowledge through inter- disciplinary and Multi – disciplinary courses
PO6	Engage in Research and apply statistical tools and techniques for Problem solving and decision making.
PO7	Enhance skills required for a particular domain by integrating practical and theoretical knowledge

PO8	Communicate effectively with various stake - holders
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SCHOOL OF ELECTRONICS AND COMMUNICATION ENGINEERING

Program: Electronics and Communication Engineering (ECE)

Program Educational Objectives (PEO's)

The programme educational objectives of the Electronics and Communication Engineering of REVA University is to prepare graduates

- PEO-1 To have successful professional careers in industry, government, academia and military as innovative engineers.
- PEO-2 To successfully solve engineering problems associated with the lifecycle of Electronics and Communication Systems by communicating effectively either leading a team or as a team member
- PEO-3 To continue to learn and advance their careers through activities such as participation in professional organizations, attainment of professional certification for lifelong learning and seeking higher education.
- PEO-4 To be active members ready to serve the society locally and internationally and will take up entrepreneurship for the growth of economy and to generate employment.

Program Outcomes (POs)

On completion of B. Tech degree in Electronics and Communication, graduates shall have

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals for the solution of complex problems in Electronics and communication Engineering.
2. Problem analysis: Identify, formulate, research literature, and analyze engineering problems to arrive at substantiated conclusions using first principles of mathematics, natural, and engineering sciences.
3. Design/development of solutions: Design solutions for complex engineering problems and design system components, processes to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. Conduct investigations of complex problems: Use research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice
9. Individual and team work: Function effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.
10. Communication: Communicate effectively with the engineering community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give and receive clear instructions.
11. Project management and finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team. Manage projects in multidisciplinary environments.
12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSO)

After successful completion of the program, the graduates shall be able to

1. Isolate and solve complex problems in the domains of Electronics and Communication Engineering using latest hardware and software tools and technologies, along with analytical and managerial skills to arrive at cost effective and optimum solutions either independently or as a team.
2. Implant the capacity to apply the concepts of electronics, communications, signal processing, VLSI, embedded systems, etc. in the design, development and implementation of application oriented engineering systems.
3. Design, Model, Analyze and Build Electronics and Communication Systems to solve real life and industry problems.

**SCHOOL OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

Program: Electronics and Computer Engineering (ECM)

Program Educational Objectives (PEO's)

The programme educational objectives of the Electronics and Computer Engineering of REVA University is to prepare graduates

PEO-1	To have successful professional careers in industry, government, academia and military as innovative engineers.
PEO-2	To successfully solve engineering problems associated with the life cycle of Electronics and Computer Systems by communicating effectively either leading a team or as a team member
PEO-3	To continue to learn and advance their careers through activities such as participation in professional organizations, attainment of professional certification for lifelong learning and seeking higher education.
PEO-4	To be active members ready to serve the society locally and internationally and will take up entrepreneurship for the growth of economy and to generate employment.

Program Outcomes (POs)

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals for the solution of complex problems in Electronics and computer Engineering.
2. **Problem analysis:** Identify, formulate, research literature, and analyze engineering problems to arrive at substantiated conclusions using first principles of mathematics, natural, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components, processes to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively with the engineering community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give **and receive clear instructions.**
11. **Project management and finance:** Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team. Manage projects in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Programme Specific Outcomes (PSO)

After successful completion of the programme, the graduates shall be able to

1. Isolate and solve complex problems in the domains of Electronics and Computer Engineering using latest hardware and software tools and technologies, along with analytical and managerial skills to arrive at cost effective and optimum solutions either independently or as a team.
2. Implant the capacity to apply the concepts of electronics, communications, signal processing, VLSI, embedded systems, etc in the design, development and implementation of application oriented engineering systems.
3. Design, Model, Analyse and Build Electronics and Computer Systems to solve real life and industry problems.

B.Tech in Mechanical Engineering

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

The programme educational objectives of the Mechanical Engineering of REVA University are to prepare graduates to

PEO 1: Exhibit skills as a member of a team in national and international organizations with highest ethics through lifelong learning

PEO 2: Pursue higher education through continuous learning with effective communication skills

PEO 3: Start own enterprise and provide solutions in mechanical engineering and allied area's

PROGRAM OUTCOMES (POs)

PO 1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, to solve mechanical engineering problems.

PO 2: Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

PO 3: Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO 4: Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems

PO 5: Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO 6: The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO 7: Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9: Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11: Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12: Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs)

After successful completion of the programme, the graduates shall be able to

PSO 1: Apply mechanical engineering knowledge and skills in Design, Manufacturing, Thermal and Industrial Engineering to obtain realistic outcomes.

PSO 2: Identify, formulate, analyze and solve problems in mechanical engineering and allied domains.

PSO 3: Conduct investigations in Mechanical Engineering and allied areas to provide optimal and sustainable solutions.

B.Tech in Mechatronics Engineering

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

The **Programme Educational Objectives** are to prepare the students to:

PEO 1: Work as an Engineer in mechanical and electronics sectors in multidisciplinary role

PEO 2: Act as an administrator in public, private and government organisations or start own business with further training and education

PEO 3: Pursue higher education to work in colleges, universities as professors or as scientists in research establishments

PEO 4: Adopt lifelong learning philosophy for continuous improvement in working environment either as a member of team or lead the team.

PROGRAM OUTCOMES (POs)

PO 1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, to solve problems in mechatronics engineering.

PO 2: Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

PO 3: Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO 4: Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems

PO 5: Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO 6: The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO 7: Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9: Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11: Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12: Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs)

After successful completion of the programme, the graduates shall be able to

PSO 1: Apply mechatronics engineering knowledge and skills in Design, Manufacturing, Automation and Electronics to obtain realistic outcomes.

PSO 2: Identify, formulate, analyze and solve problems in mechatronics engineering and allied domains.

PSO 3: Conduct investigations in Mechanical and Electronics Engineering and allied areas to provide optimal and sustainable solutions.

BA Journalism English Psychology

School of Arts and Humanities

Program Educational Objectives

1. Pursue Higher Education in Universities at national and international level.
2. Work as a team member in Public, Private, Corporate and Government Sector as techno managers, academicians, administrator or entrepreneur's, investigative agencies with effective Communication and ethics.
3. Start own enterprise and communicate with customers effectively and adapt lifelong learning Skills for expanding Business.

Program Specific Outcomes

1. Demonstrate the Knowledge in Journalism, English and Psychology.
2. Analyze and apply skills in Journalism with effective communication by understanding the psychology of the people.
3. Use different techniques to gather information in Journalism and report effectively.

Program Outcomes

- **PO 1: Disciplinary knowledge:** Capable of demonstrating comprehensive knowledge and in understanding Journalism, English and Psychology study.
- **PO 2: Reasoning:** Ability to analyze, interpret and draw conclusions from evidence and experiences from an open-minded and reasoned perspective.
- **PO 3: Problem solving:** Capacity to extrapolate and apply their competencies to solve different kinds of non-familiar problems and apply one's learning to real life situations using curriculum content knowledge.
- **PO 4: Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO 5: Research-related skills:** A sense of inquiry and capability for asking relevant/appropriate questions, and articulating; Ability to recognize cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyze, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; ability to plan, execute and report the results of an experiment or investigation
- **PO 6: Ethics:** Recognize different value systems including your own, understand the **moral dimensions** of your decisions, and **accept responsibility** for them.

- **PO 7: Cooperation/Team work:** Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team.
- **PO 8: Communication Skills:** Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one's views and express herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups
- **PO 9: Self-directed and Life-long Learning:** Acquire the ability to engage in independent and **life-long learning** in the broadest context socio-technological changes.

Program Educational Objectives (PEOs)

PEO-1	Prospective Employment and Career Prospects- To empower graduates for employment in the performing arts field, content writing, teaching and exploring careers in Psychology and orient them for research and higher studies.
PEO-2	Proficiency- Graduates will demonstrate comprehensive knowledge of literature in their chosen domain or research focus. They will describe a range of techniques related to performing arts and rhetorical strategies used in texts, including their relationship to audience, purpose and cultural contexts.
PEO-3	Entrepreneurship- Establish dance institutes/studios and to work as entrepreneurs with an ability to develop new projects and choreographic works.
PEO-4	Research Methods- Graduates will learn how to design and carry out original and persuasive research in Performing arts, English literature and Psychology with particular attention to literary theory and criticism.
PEO-5	Continuous Learning- The course will enable them to be a continuous learner by expanding the skill-set in response to a changing environment and new developments.

Program Outcomes (POs)

- 1. Performing Arts knowledge:** Apply the knowledge of Performing Arts, World Dance History, Art History, English literature, Social Psychology, Developmental Psychology for the solution of complex problems in various domains of life sciences including the cultural, societal, and environmental arenas.
- 2. Problem analysis:** Identify, formulate and analyze problems related to the various domains of Performing Arts such as technical aspects of performing arts, ancient Sanskrit treatises, historical timelines, Indian cultural heritage, critical writing and interdisciplinary studies.
- 3. Conduct investigations of complex problems:** Use research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 4. Multi-Disciplinary Approach-** Articulate the relations among culture, history and texts.
- 5. Modern tool usage:** To create, select, and apply appropriate techniques, resources, and

modern technology for theatre/dance and music productions which in turn benefit the audience.

6. **Ethics:** Apply ethical principles and commit to professional ethics, responsibilities and norms in Humanities and Social Sciences in general and in performing arts field in particular.
7. **Individual and team work:** Perform/Act effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.
8. **Communication:** Communicate effectively with the artiste's fraternity and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give and receive clear instructions.
9. **Art management and finance:** Demonstrate knowledge and understanding of Performing Arts and management principles and apply these to one's own work, as a member and leader in a team. Manage art projects in multidisciplinary environments.
10. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSO)

After successful completion of the program, the graduates shall be able to

1. Visualise, Create, Design and Analysedance, music and theatre projects
2. Apply appropriate performing artstechniquesand produce high quality productions and expressions of art
3. Use higher order critical, analytical skills to solve a new problem in multi-disciplinary fields of Performing Arts, English literature and Psychology



SCHOOL OF ELECTRICAL AND ELECTRONICS ENGINEERING

B.Tech in Electrical and Computer Engineering

Programme Educational Objectives (PEOs)

The programme helps to develop critical, analytical, innovative, creative and problem solving abilities amongst its graduates. The programme makes the graduates employable as electrical and electronic engineers in power and energy, manufacturing and service sectors. With further education and earning of higher level degrees help the graduates to pursue a career in academics or scientific organisations as researchers.

The Programme Educational Objectives are to prepare the students to:

- 1) Work as a member of a team for successful career and communicate effectively in multidisciplinary environment with highest ethics.
- 2) Continue to learn in the areas of Electrical & Computer Engineering and allied areas and implement effective strategies with the advancement of technologies in Electrical & Computer Engineering
- 3) Become an entrepreneur in the domain of Electrical & Computer Engineering and other allied areas

Programme Outcomes (POs)

After undergoing this programme, a student will be able to:

1. An ability to understand the concept, identify, formulate, and solve complex electrical & computer engineering problems by applying knowledge & principles of engineering, science, and mathematics
2. Identify, formulate, review research literature, analyze, interpret and draw conclusions from quantitative & qualitative data of an electrical and computer system, component, or process to meet desired needs.
3. Design solutions for engineering problems and system components related electrical & computer systems that meet economic, environmental, social, political, health and safety, and sustainability requirements.
4. Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in the field of electrical & computer engineering.

5. Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex electrical circuits, computer codes for electrical applications with an understanding of the limitations
6. Apply contextual knowledge to assess social, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Apply ethical principles and solve professional, legal and ethical issues pertaining to electrical & computer engineering and its related fields
9. Function effectively as a team member or leader in diverse teams to accomplish a common goal in a multi disciplinary teams
10. Communicate effectively on complex engineering activities with the engineering community and with society at large in both verbal and written forms.
11. Demonstrate knowledge and understanding of the engineering and management principles to manage projects effectively in diverse environments as a member or leader of a team.
12. Engage in independent and life-long learning in the broader context of technological change for continued professional development.

Program Specific outcome:

1. Apply the fundamentals of mathematics, science and engineering knowledge to identify, formulate, design and investigate complex engineering problems of electric circuits, analog and digital electronics circuits, control systems, electrical machines, machine learning, computer programming data science, data structure, computing & networking, power system, renewable energy system and electric vehicle.
2. Apply the appropriate, state of the art techniques and modern engineering hardware and software tools in electrical and computer engineering to engage in life-long learning and to successfully adapt in multi-disciplinary environments.
3. Aware of the impact of professional engineering solutions in societal, environmental context, professional ethics and be able to communicate effectively.



SCHOOL OF ELECTRICAL AND ELECTRONICS ENGINEERING

B.Tech in EEE

Programme Educational Objectives (PEOs)

The programme helps to develop critical, analytical, innovative, creative and problem solving abilities amongst its graduates. The programme makes the graduates employable as electrical and electronic engineers in power and energy, manufacturing and service sectors. With further education and earning of higher level degrees help the graduates to pursue a career in academics or scientific organisations as researchers.

The Programme Educational Objectives are to prepare the students to:

- 1) work as a member of a team for successful career and communicate effectively in multidisciplinary environment with highest ethics.
- 2) continue to learn in the areas of Electrical & Electronics Engineering and allied areas and implement effective strategies with the advancement of technologies in Electrical & Electronics Engineering
- 3) become an entrepreneur in the domain of Electrical & Electronics Engineering and other allied areas

Programme Outcomes (POs)

After undergoing this programme, a student will be able to:

1. An ability to understand the concept, identify, formulate, and solve complex electrical engineering problems by applying knowledge & principles of engineering, science, and mathematics
2. Identify, formulate, review research literature, analyze, interpret and draw conclusions from quantitative & qualitative data of an electrical and electronics system, component, or process to meet desired needs.
3. Design solutions for engineering problems and system components related electrical & electronic systems that meet economic, environmental, social, political, health and safety, and sustainability requirements.
4. Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in the field of electrical & electronics engineering.
5. Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex electrical and electronics circuits with an understanding of the limitations

6. Apply contextual knowledge to assess social, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Apply ethical principles and solve professional, legal and ethical issues pertaining to electrical & electronics engineering and its related fields
9. Function effectively as a team member or leader in diverse teams to accomplish a common goal in a multi disciplinary teams
10. Communicate effectively on complex engineering activities with the engineering community and with society at large in both verbal and written forms.
11. Demonstrate knowledge and understanding of the engineering and management principles to manage projects effectively in diverse environments as a member or leader of a team.
12. Engage in independent and life-long learning in the broader context of technological change for continued professional development.

Program Specific outcome:

1. Apply the fundamentals of mathematics, science and engineering knowledge to identify, formulate, design and investigate complex engineering problems of electric circuits, analog and digital electronics circuits, control systems, electrical machines, power system, renewable energy system and electric vehicle.
2. Apply the appropriate, state of the art techniques and modern engineering hardware and software tools in electrical and electronics engineering to engage in life-long learning and to successfully adapt in multi-disciplinary environments.
3. Aware of the impact of professional engineering solutions in societal, environmental context, professional ethics and be able to communicate effectively.

B.Tech in Computer Science and Engineering

PROGRAM EDUCATIONAL OBJECTIVES

The program helps to develop critical, analytical, innovative, creative and problem solving abilities amongst its graduates. The programme makes the graduates employable as Software Engineers across sectors. With further education and earning of higher level degrees help the graduates to pursue a career in academics or scientific organisations as researchers.

The Program Educational Objectives (PEOs) :

PEO-1	Have successful professional careers in industry, government, academia and military as innovative engineer in a team
PEO-2	Develop code and solutions to industry in a rapid changing technology environment and communicate with clients as an entrepreneur
PEO-3	Pursue higher studies and continue to learn by participating conferences, seminars etc

PROGRAM OUTCOMES

After undergoing this programme, a student will be able to:

Program Outcomes (POs)

PO1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals for the solution of complex problems in Computer Science and Engineering.

PO2. Problem analysis: Identify, formulate, research literature, and analyze engineering problems to arrive at substantiated conclusions using first principles of mathematics, natural, and engineering sciences.

PO3. Design/development of solutions: Design solutions for complex engineering problems and design system components, processes to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.

PO10. Communication: Communicate effectively with the engineering community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give **and receive clear instructions.**

PO11. Project management and finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team. Manage projects in multidisciplinary environments.

PO12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Programme Specific Outcomes (PSO)

After successful completion of the programme, the graduates will be able to

1. Demonstrate the knowledge of Data structures and Algorithms, Operating Systems, Database Systems, Software Engineering, Programming Languages, Digital systems, Theoretical Computer Science, and Computer Networks
2. Solve latest problems and develop code to address the requirements of Industry through programming.
3. Use modern tools and techniques in the area of Computer Science and Engineering



SCHOOL OF LEGAL STUDIES

L.L.M (Business and Corporate Law) Program

Programme Educational Objectives (PEOs)

The aim of the programme is to produce postgraduates with advanced knowledge and understanding of developments in modern corporate world with higher order critical, analytical, problem solving and transferable skills; to make student think rigorously and independently to meet higher level expectations of legal profession, academics, research establishments.

The Programme Educational Objectives are to prepare the students to:

1. Adopt lifelong learning philosophy for continuous improvement.
2. Cultivating Professional Identity
3. Fostering Professional Ethics
4. Gaining Insight into the corporate Law in different Legal System
5. Promoting Cultural Competency
6. Encouraging Lifelong Learning and Professional Reflection
7. To promote student to Learning to Work Collaboratively

Programme Outcomes (POs)

After undergoing this programme, a student will be able to:

1. Solve legal problems by applying foundational knowledge of the rules regulating the legal profession.
2. Identify and apply relevant legal authority.
3. Communicate clearly in speech and writing.
4. Demonstrate the fundamental professional lawyering skills for competent and ethical participation as a member of the legal profession.

Program Specific Outcomes(PSO's)

1. Understand the structure, components and functioning of the various institutions of the Indian legal system and the role of law in day to day life.
2. Describe the general principles of law with the nature and sources of law, relation of law with human and institutional agencies responsible for the protection of human rights, liberty and balancing the interests of the individuals and society

3. Demonstrate the concepts of the legal provisions by addressing the ideological framework and analyse and apply for the benefit of the larger society.



SCHOOL OF LEGAL STUDIES

BA LLB (HONS)

Programme Educational Objectives(PEO's)

The Programme Educational Objectives are to prepare the students to:

1. Be advocate to practice in different Courts and Tribunals in India.
2. Be part of Indian judicial system like magistrate, civil judge, presiding officers in different judicial forums.
3. To act as Legal Services Director in public, private and government organizations.
4. Pursue higher degrees to work in Colleges, Universities as professors.
5. Be independent tax consultant.
6. To be arbitrator and mediator in the process of outside court settlement.
7. Can start his own Law Firm.
8. Work as member of Law Firm and can also head a wing of the law firm.
9. Adopt lifelong learning philosophy for continuous improvement.
10. To be a socially responsible citizen
11. Develop the knowledge to create legal awareness in society for attaining social and economic justice.

Program Specific Outcomes(PSO's)

1. Understand the structure, components and functioning of the various institutions of the Indian legal system and the role of law in day to day life.
2. Describe the general principles of law with the nature and sources of law, relation of law with human and institutional agencies responsible for the protection of human rights, liberty and balancing the interests of the individuals and society
3. Demonstrate the concepts of the legal provisions by addressing the ideological framework and analyse and apply for the benefit of the larger society.

Programme Outcomes (POs)

After undergoing this programme, a student will be able to:

1. Explain and make in-depth analysis of substantive and procedure laws.
2. Analyze and resolve legal problems to achieve social and economic justice

3. Understand the principles of law, its processes, procedures and relevant application in the legal world.
4. Demonstrate adequate legal skills in different areas of legal profession.
5. Develop capacity to analysis various legal documentations.

6. Conduct legal research using analytical and critical thinking.
7. Develop a global perspective towards various legal issues
8. Demonstrate and practice advocacy skills in different legal profession.
9. Develop the skill of Drafting of legal documents, Law reports and legal documents.

M.Com

Programme Overview:

The PG degree in Commerce at REVA is designed to offer a pathway to diverse careers. The combination of theoretical and practical knowledge induced in this program provides hands-on experience to students through industrial interaction. The syllabus is designed to enhance the skills of students and make them competent to face the challenges of life with confidence. Projects, internships, e-assignments, case studies, guest lectures, industrial visits and online tests form a part of the teaching-learning process. In addition to the regular degree students are encouraged to take up various certification programs offered by the school to enhance their knowledge sphere. Students also gain hands on experience through their exposure to business lab and improve their communication skills they are introduced to language lab. The M.Com program helps to gain practical exposure in varied branches of commerce. It provides accounting experience and helps to analyze recent developments in financial innovations and their influence on the effectiveness of monetary policy. It prepares them to analyze and interpret financial statement of corporate and other sectors.

Programme Educational Objectives {PEO}: The Broad Objectives of the Programme are:

- a) To enable the Post graduate students to Engage in Accounting Profession successfully.
- b) To enable the students to carry out Research in the area of Commerce & Accountancy.
- c) To enable the students to be a successful consultant/ Entrepreneur.

Programme Out comes (Students' Outcomes):

On successful completion of the Programme the students shall be able to:

- a) To apply the knowledge and skills of commerce and accounting to resolve the real life commerce and accounting.
- b) To work and lead a team of accounting professionals.
- c) To identify, formulate and solve complex commerce and accounting problems.
- d) To apply professional and ethical principles.
- e) To plan and Execute commerce and accounting projects.
- f) To carry out research work in the contemporary areas of commerce & accounting.
- g) To apply the modern tools & skills to resolve commerce and Accounting problems.
- h) To apply critical and Analytical skills and methods to identify & resolve complex commerce and accounting problems of real life.



SCHOOL OF ELECTRONICS AND COMMUNICATION ENGINEERING
M.Tech. (VLSI & Embedded Systems)
(Full Time)

Program Educational Objectives (PEO's)

The programme educational objectives of the Electronics and Communication Engineering of REVA University is to prepare graduates

PEO-1	To have successful professional careers in national and multinational organization and communicate effectively as a member of a team or to lead a team.
PEO-2	To continue to learn and advance their careers through activities such as research and development, acquiring doctoral degree, participation in national level research programmes, teaching and research at university level etc.,
PEO-3	To be active members ready to serve the society locally and internationally, may take up entrepreneurship for the growth of economy and to generate employment; and adopt the philosophy of lifelong learning to be aligned with economic and technological development.

Program Outcomes (POs)

After successful completion of the programme, the graduates shall be able to

PO1. Demonstrate in-depth knowledge of VLSI and Embedded Systems, including wider and global perspective, with an ability to discriminate, evaluate, analyze and synthesize existing and new knowledge, and integration of the same for enhancement of knowledge.

PO2. Analyze complex engineering problems critically, apply independent judgment for synthesizing information to make intellectual and/or creative advances for conducting research in a wider theoretical, practical and policy context.

PO3. Think laterally and originally, conceptualize and solve engineering problems, evaluate a wide range of potential solutions for those problems and arrive at feasible, optimal solutions after considering public health and safety, cultural, societal and environmental factors in the core areas of expertise.

PO4. Extract information pertinent to unfamiliar problems through literature survey and experiments, apply appropriate research methodologies, techniques and tools, design, conduct experiments, analyze and interpret data, demonstrate higher order skill and view things in a broader perspective, contribute individually/in group(s) to the development of scientific/technological knowledge in one or more domains of engineering.

PO5. Create, select, learn and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling, to complex engineering activities with an understanding of the limitations.

PO6. Possess knowledge and understanding of group dynamics, recognize opportunities and contribute positively to collaborative-multidisciplinary scientific research, demonstrate a capacity for self-management and teamwork, decision-making based on open-mindedness, objectivity and rational analysis in order to achieve common goals and further the learning of themselves as well as others.

PO7. Demonstrate knowledge and understanding of engineering and management principles and apply the same to one's own work, as a member and leader in a team, manage projects efficiently in respective disciplines and multidisciplinary environments after consideration of economical and financial factors.

PO8. Communicate with the engineering community, and with society at large, regarding **complex engineering activities** confidently and effectively, such as, being able to comprehend and write effective reports and design documentation by adhering to appropriate standards, make effective presentations, and give and receive clear instructions.

PO9: Recognize the need for, and have the preparation and ability to engage in **life-long learning** independently, with a high level of enthusiasm and commitment to improve knowledge and competence continuously.

PO10. Acquire professional and intellectual integrity, professional code of conduct, ethics of research and scholarship, consideration of the impact of research outcomes on professional practices and an understanding of responsibility to contribute to the community for sustainable development of society.

PO11. Observe and examine critically the outcomes of one's actions and make corrective measures subsequently, and learn from mistakes without depending on external feedback (**SELF learning**)

Programme Specific Outcomes (PSO's)

After successful completion of the programme, the graduates shall be able to

1. Isolate and solve complex problems in the domains of VLSI and Embedded Systems using latest hardware and software tools and technologies, along with analytical and managerial skills to arrive at cost effective and optimum solutions either independently or as a team.
2. Implant the capacity to apply the concepts of FPGA, ASIC, System On Chip, IoT and cyber physical systems, etc. in the design, development and implementation of application oriented engineering systems
3. Design, Model, Analyze and VLSI and Embedded Systems to solve real life and industry problems.

M.Tech in Machine Design

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

The aim of the program is to produce postgraduates with advanced knowledge and understanding of contemporary machine design; higher order critical, analytical, problem solving and transferable skills; ability to think rigorously and independently to meet higher level expectations of industry, academics, research establishments or take up entrepreneurial route.

The **Program Educational Objectives** are to prepare the students to:

1. Be machine designers to design mechanical equipment, machines and mechanical systems as per the desired customer specifications.
2. Pursue doctoral research degree to work in colleges, universities as professors or as scientists in research establishments.
3. Act as administrators in public, private and government organizations or business administrator or entrepreneur with further training.

PROGRAM OUTCOMES (POs)

After undergoing this program, a student will be able to:

- a. Explain underlying engineering principles for design and control of machines.
- b. Choose materials for design of machine elements.
- c. Choose appropriate mechanisms to build machines and perform kinematic and dynamic analysis.
- d. Perform detailed design calculations for designing mechanical elements, equipment, machines and systems used in different domains of engineering.
- e. Use CAE tools to model, simulate and analyze the behavior of machine elements, equipment and systems for design optimization and performance improvement.
- f. Develop prototype, instrument and evaluate its performance.
- g. Work as a team member or lead a team to ensure that projects are completed satisfactorily, on time, and within budget.
- h. Conform to cultural, environmental, sustainability and ethical issues.
- i. Communicate across teams verbally, visually and by writing.
- j. Choose an appropriate online program for further learning, participate in seminars and conferences.

PROGRAM SPECIFIC OUTCOMES (PSOs)

After successful completion of the programme, the graduates shall be able to

PSO 1: Apply Machine Design knowledge and skills in Design, Manufacturing, Thermal and Industrial Engineering to obtain realistic outcomes.

PSO 2: Identify, formulate, analyze and solve problems in Machine Design and allied domains.

PSO 3: Conduct investigations in Machine Design and allied areas to provide optimal and sustainable solutions.

MA English

School of Arts and Humanities

Program Educational Objectives

1. Pursue Higher Education and work in Universities either as Professors or Researchers.
2. Occupy a position and work as a team member in Public, Private and Government organizations.
3. Start own enterprise and communicate with customers effectively and adapt a lifelong learning Skills for imparting Business.

Program Specific Outcomes

1. Demonstrate the Knowledge in Language and Literature.
2. Analyze creative literary form (poetry, prose, Drama, fiction and creative non-fiction); and Apply skills in using theoretical frame works on structures of language through a wide variety of literary works on different perspectives.
3. Use different techniques to apply the concepts from literary theory and criticism in the analysis and interpretation of texts in Language and Literature.

Program Outcomes

- **PO 1: Disciplinary knowledge:** Capable of demonstrating comprehensive knowledge and in understanding Language and Literature Studies.
- **PO 2: Reasoning:** Ability to analyze, interpret and draw conclusions from evidence and experiences from an open-minded and reasoned perspective.
- **PO 3: Problem solving:** Capacity to extrapolate and apply their competencies to solve different kinds of non-familiar problems and apply one's learning to real life situations using curriculum content knowledge.
- **PO 4: Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO 5: Research-related skills:** Recognize cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyze, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; ability to plan, execute and report the results of an investigation
- **PO 6: Ethics:** Recognize different value systems including your own, understand the **moral dimensions** of your decisions, and **accept responsibility** for them.
- **PO 7: Cooperation/Team work:** Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team.
- **PO 8: Communication Skills:** Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one's views and express

herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups

- **PO 9: Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes



School of Management, REVA University BBA

Program	Relevance of Curriculum to local / national / regional / global developmental needs	Learning objectives	Program outcomes	Program specific outcomes	Course outcomes*
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<p>BBA Industry Integrated</p>	<p>National, Regional, Local</p>	<p>The Programme Educational Objectives are to prepare the students to:</p> <ol style="list-style-type: none"> 1. manage business activities like marketing, sales, finance and accounts, operations, public relations, logistics, supply chain management etc., 2. pursue for higher degrees to work in colleges, universities as professors or as scientists in research establishments 3. act as administrators in public, private and government organisations with further training 4. be conversant with environmental, legal, cultural, social, ethical, public safety issues 5. work as a member of a team as well as lead a team 6. communicate effectively across team members and work under constraints 7. set his/her own enterprise with further training 8. adopt lifelong learning philosophy for continuous improvement 	<p>Programme Outcomes (POs)</p> <p>After undergoing this programme, a student depending on subject specialization will be able to:</p> <ol style="list-style-type: none"> 1. perform management activities like marketing, sales, 2. accounting and financial planning, 3. Human resources sourcing and development, 4. public relations, 5. manage operations 6. Perform project management activity 7. act as an effective team member to ensure that projects are completed satisfactorily, on time, and within budget 8. conform to cultural, environmental, sustainability and ethical issues 9. communicate across teams verbally, visually and by writing 10. choose an appropriate online educational programmes for further learning, participate in seminars and conferences 	<p>NA</p>	<p>Course Files</p>
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SCHOOL OF COMPUTER SCIENCE AND APPLICATIONS

Master of Computer Applications (MCA)

Programme Educational Objectives (PEOs)

The aim of the programme is to produce postgraduates with advanced knowledge and understanding of Computer Science and Applications with higher order critical, analytical, problem solving and transferable skills; with ability to think rigorously and independently to meet higher level expectations of ICT industry, academics, and research establishments or take up venture.

The Programme Educational Objectives are to prepare the students to:

1. be software engineers who can design, code, test and implement computer programs
2. pursue higher degrees so as to work in colleges/ universities as professors or as scientists in research establishments
3. act as administrators in public, private and government organisations with further training
4. be aware of environmental, legal, cultural, social, ethical, public safety issues
5. work as a member of a team as well as lead a team
6. communicate effectively across team members and work under constraints
7. set his/her own enterprise with further training
8. adopt lifelong learning philosophy for continuous improvement

Program Outcomes (POs)

PO 1: Computational Knowledge: Apply knowledge of computing fundamentals, computing specialisation, mathematics, and domain knowledge appropriate for the computing specialisation to the abstraction and conceptualisation of computing models from defined problems and requirements.

PO 2: Problem Analysis: Identify, formulate, research literature, and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines.

PO 3: Design /Development of Solutions: Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

PO 4: Conduct investigations of complex Computing problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO 5: Modern Tool Usage: Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations.

PO 6: Professional Ethics: Understand and commit to professional ethics and cyber regulations, responsibilities, and norms of professional computing practices.

PO 7: Life-long Learning: Recognise the need, and have the ability, to engage in independent learning for continual development as a computing professional.

PO 8: Project management and finance: Demonstrate knowledge and understanding of the computing and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 9: Communication Efficacy: Communicate effectively with the computing community, and with society at large, about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.

PO 10: Societal and Environmental Concern: Understand and assess societal, environmental, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practices.

PO 11: Individual and Team Work: Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary environments.

PO 12: Innovation and Entrepreneurship: Identify a timely opportunity and using innovation to pursue that opportunity to create value and wealth for the betterment of the individual and society at large.



School of Civil Engineering

B.Tech in Civil Engineering

Program Educational Objectives (PEO's)

The programme educational objectives of the Civil Engineering of REVA University is to prepare graduates

PEO-1	To have successful professional careers in construction industry, government, academia and military as innovative engineers.
PEO-2	To successfully solve engineering problems associated with planning, design & construction of civil engineering projects by executing construction works effectively either leading a team or as a team member
PEO-3	To continue to learn and advance their careers through activities such as participation in professional organizations, attainment of professional certification for life long learning and seeking higher education.
PEO-4	To be active members ready to serve the society locally and internationally and will take up entrepreneurship for the growth of economy and to generate employment.

Program Outcomes (POs)

- 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals for the solution of complex problems in civil Engineering.
- 2. Problem analysis:** Identify, formulate, research literature, and analyze engineering problems to arrive at substantiated conclusions using first principles of mathematics, natural, and engineering sciences.
- 3. Design/development of solutions:** Design solutions for complex engineering problems and design system components, processes to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. Conduct investigations of complex problems: Use research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice

9. Individual and team work: Function effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.

10. Communication: Communicate effectively with the engineering community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give **and receive clear instructions.**

11. Project management and finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team. Manage projects in multidisciplinary environments.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Programme Specific Outcomes (PSO)

After successful completion of the programme, the graduates shall be able to

- PSO1: Apply knowledge of Construction Engineering, Environmental Engineering, Geotechnical Engineering, Structural Engineering, Surveying, Transportation Engineering and Water Resources Engineering in real time.

- PSO2: Analyse a system, component or process in the knowledge areas of civil engineering in real time problems.
- PSO3: Design a system, component, or process in more than one areas of Civil Engineering.
- PSO4: Conduct investigations and address complex civil engineering problems; utilize and develop innovative tools and techniques that are appropriate in civil engineering discipline.

Program Educational Objectives (PEO's)

The programme educational objectives of the Civil Engineering of REVA University is to prepare graduates

PEO-1	To have successful professional careers in industry, government, academia and military as innovative engineers.
PEO-2	To successfully solve engineering problems associated with the lifecycle of Civil Engineering system, in particular structural engineering by communicating effectively either leading a team or as a team member
PEO-3	To continue to learn and advance their careers through activities such as research and development, acquiring doctoral degree, participation in national level research programmes, teaching and research at university level etc.,
PEO-4	To be active members ready to serve the society locally and internationally, may take up entrepreneurship for the growth of economy and to generate employment; and adopt the philosophy of lifelong learning to be aligned with economic and technological development.

Program Outcomes (POs)

After successful completion of the programme, the graduates shall be able to

- PO1. **Demonstrate in-depth knowledge** of computer aided structural Engineering, including wider and global perspective, with an ability to discriminate, evaluate, analyze and synthesize existing and new knowledge, and integration of the same for enhancement of knowledge.
- PO2. **Analyze complex engineering problems critically**, apply independent judgment for synthesizing information to make intellectual and/or creative advances for conducting research in structural engineering , wider theoretical, practical and policy context.
- PO3. **Think laterally and originally, conceptualize and solve structural engineering problems**, evaluate a wide range of potential solutions for those problems and arrive at feasible, optimal solutions after considering public health and safety, cultural, societal and environmental factors in computer aided structural Engineering
- PO4. **Extract information pertinent to unfamiliar problems** through literature survey and experiments, apply appropriate **research methodologies, techniques and tools, design**, conduct experiments, analyze and interpret data, demonstrate higher order skill and view things in a broader perspective, contribute individually/in group(s) to the development of scientific/technological knowledge in computer aided structural Engineering
- PO5. **Create, select, learn and apply** appropriate techniques, resources, and structural **engineering and IT tools**, including prediction and modeling, to complex engineering activities with an understanding of the limitations.
- PO6. Possess knowledge and understanding of group dynamics, recognize opportunities and contribute positively to **collaborative-multidisciplinary scientific research**, demonstrate a capacity for self-management and teamwork, decision-making based on open-mindedness, objectivity and rational analysis in order to achieve common goals and further the learning of themselves as well as others.
- PO7. Demonstrate knowledge and understanding of structural Engineering principles and apply the same to one's own work, as a **member and leader in a team**, manage projects efficiently in respective disciplines and multidisciplinary environments after consideration of economical and financial factors.
- PO8. **Communicate with the engineering community**, and with society at large, regarding complex Structural engineering activities confidently and effectively, such as, being able to comprehend and write effective reports and design documentation by

adhering to appropriate standards, make effective presentations, and give and receive clear instructions.

- PO9: Recognize the need for, and have the preparation and ability to engage in **life-long learning** independently, with a high level of enthusiasm and commitment to improve knowledge and competence continuously.
- PO10. Acquire professional and intellectual integrity, professional **code of conduct**, **ethics of research** and scholarship, consideration of the impact of research outcomes on professional practices and an understanding of responsibility to contribute to the community for sustainable development of society.
- PO11. Observe and examine critically the outcomes of one's actions and make corrective measures subsequently, and **learn from mistakes** without depending on external feedback (**SELF learning**).

Programme Specific Outcomes (PSO's)

- 1) Apply knowledge of Structural Engineering and management in real time.
- 2) Analyse a system, component or process in the knowledge areas of Structural Engineering in real time problems.
- 3) Design a system, component, or process in more than one areas of Structural Engineering.
- 4) Conduct investigations and address complex Structural Engineering problems; Utilize and develop innovative tools and techniques that are appropriate in Structural Engineering discipline.

Program Educational Objectives (PEO's)

The programme educational objectives of the **B.Sc (PCM)** course is to prepare graduates to

PEO-1	Demonstrate problem solving skills in physics, chemistry and mathematics by communicating effectively either leading a team or as a team member.
PEO-2	Express oral and written interpersonal skills in order to understand, learn and advance their careers through research developments and seeking higher education.
PEO-3	Understand the professional, ethical and social responsibilities through lifelong learning skills

Program Outcomes (POs)

PO1. Demonstrate the knowledge in the areas of physics, chemistry and mathematics

PO2. Apply the fundamentals of physics, chemistry and mathematics to formulate, solve and interpret complex problems.

PO3. Comprehend, analyze, model and solve complex problems in the areas of physics, chemistry and mathematics.

PO4. Recognize the need to expertise in the areas of physics, chemistry and mathematics by self-upgradation through lifelong learning.

PO5. Communicate with clarity and coherence, both written and verbally.

PO6. Exhibit professional and ethical responsibility.

PO7. Encourage collaborative learning through group activities and hands-on learning.

PO8. Use latest computer techniques and tools to carry out scientific investigations and develop new solutions and solve problems related to environment and society.

Programme Specific Outcomes (PSO)

After successful completion of the programme, the graduates shall be able to

PSO1. Acquire a strong conceptual foundation in the area of physics, chemistry and mathematics using latest software tools and technologies, along with analytical and managerial skills to arrive at cost effective and optimum solutions.

PSO2. Implant the capacity to apply theoretical concepts to design and develop solutions.

M. Sc. Physics

Programme Educational Objectives (PEOs)

The aim of the programme is to produce postgraduates with - advanced knowledge and understanding of Physics; higher order critical, analytical, problem solving and attitudinal skills (transferable) to meet expectations of research establishments, relevant industry and academia or to take up entrepreneurial route. Hence,

The Programme Educational objectives are to prepare the students to:

1. Pursue higher education through continuous learning with effective communication skills
2. have successful professional careers in academia, industry and government
3. Start own enterprise and provide solutions to scientific research problems
4. Exhibit skills as a member of a team in national and international organizations with highest ethics through lifelong learning

Programme Outcomes (POs)

After undergoing this programme, a student will be able to:

1. **Domain knowledge:** Apply the knowledge of physics and fundamentals for the solution of complex problems in day to day life.
2. **Problem analysis:** Identify, formulate, research literature, and analyze problems to arrive at substantiated conclusions using principles of physical sciences.
3. **Design/development of solutions:** Design solutions for real time problems to meet the specifications with consideration for the public health and safety, the cultural and societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge, for analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Apply appropriate techniques, resources, and IT tools including prediction and modeling to complex activities with an understanding of the limitations.
6. **Environmental and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional practice.

7. **Environment and sustainability:** Understand the impact of the solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to ethics, and responsibilities and norms of the professional practice
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively with the professional community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give and receive clear instructions.
11. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES

1. Apply the fundamentals of classical mechanics, electrodynamics, Quantum mechanics and condensed matter physics to understand the energy quantization concepts.
2. Identify and compare the materials best suited for futuristic engineering applications
3. Explore the knowledge of basic concepts of atomic, molecular, nuclear physics to analyse the spectra obtained from various bodies.
4. Demonstrate the knowledge of fundamentals of electronic devices



M. Sc. Chemistry

Program Educational Objectives (PEOs)

The aim of the program is to produce postgraduates with - advanced knowledge and understanding of Chemistry: higher order critical, analytical, problem solving and attitudinal skills (transferable) to meet expectations of research establishments, relevant industry, and academia. Hence,

The Program Educational objectives are to prepare the students to:

- PEO1. Work as a scientist or faculty in educational institutions and research organizations in a team with further training
- PEO2. Develop strong ethics and communication as consultant with lifelong learning attitude
- PEO3. Pursue higher studies to address the problems of the society

Programme Outcomes (POs)

After undergoing this programme, a student will be able to:

1. **Knowledge Sharing:** Apply the knowledge of fundamentals mathematics, physics, and advanced chemistry to resolve the problems in everyday life.
2. **Problem analysis:** Analysis of research problems and chemical compounds and provide solutions at national and international level.
3. **Design/development of solutions:** Design and develop the eco-friendly products required for the present and future generation.
4. **Conduct investigations of complex problems:** Formulate and develop methods and utilize advanced scientific tools and techniques to probe complex chemical problems and interpret the data.
5. **Research skills:** Enhance the research skills and carryout the extensive research literature in advanced chemical studies.
6. **Environment and sustainability:** Apply critical thinking ability to achieve sustainable solutions for energy and environment.

7. **Ethics:** Apply ethical principles and commit to ethics, and responsibilities and norms of the professional practice
8. **Individual and teamwork:** Function effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.
9. **Communication:** Communicate effectively with the professional community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations and give and receive clear instructions.
10. **Life-long learning:** Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES

After the completion of program, the student will be able to:

1. Apply the various concepts of organic, inorganic, analytical, physical chemistry aspects and their applications in day to day life.
2. apply various analytical techniques such as XRD, UV, IR, NMR, Mass, Chromatography for chemical analysis.
3. Use modern techniques and tools for research and development and provide solutions in the field of chemical sciences.

Program Educational Objectives (PEOs) for BSc BCsM 2018

Program Educational Objectives (PEO)

PEO1- Develop conceptual as well as applied knowledge and skills in the field of bioinformatics and data science for sustainable approach in order to solve scientific problems.

PEO2- Express oral and Written skills to understand, learn and advance their careers through entrepreneurial orientation, research and higher education.

PEO3- Understand the professional, ethical and social responsibilities through lifelong learning skills.

Program Outcomes (POs)

- 1. Science knowledge:** Apply the knowledge of bioinformatics for the solution of complex biological problems to understand the molecular functions of organism.
- 2. Problem analysis:** Bioinformatics can solve some of the biological problems based on the gene identification, protein identification and structure prediction. Drug discovery to predict the exact drug to the disease targets and also to produce some solutions on statistical interpretations.
- 3. Conduct investigations of complex problems:** Use research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 4. Modern tool usage:** Bioinformatics always uses advanced tools, software's or algorithms and also to create advanced algorithms for product/process development which in turn benefit the society and lifelong learning.
- 5. Environment and sustainability:** Understand and implement environmental friendly approaches in Biopharmaceutical industries to support sustainable development.
- 6. Ethics:** Apply ethical principles and commit to professional ethics, responsibilities and norms in Life Sciences.
- 7. Individual and team work:** Function effectively as an individual or team work to demonstrate and understand biological problems and manage projects in multidisciplinary and interdisciplinary research.
- 8. Communication:** Communicate effectively with the engineering community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give and receive clear instructions.

Program Specific Outcomes (PSO)

After successful completion of the programme, the graduates shall be able to

PSO-1: Acquire a strong conceptual foundation in the area of bioinformatics, compute science and mathematics using latest tools and software's, algorithms and programming languages along with analytical and managerial skills to arrive at cost effective and optimum solutions.

PSO-2: Demonstrate domain expertise for the use of databases and software packages for analysis and interpretation of biological data as required by researchers in the area of Biotechnology and Life Science.



School of Management, REVA University BBAH

Program	Relevance of Curriculum to local / national / regional / global developmental needs	Learning objectives	Program outcomes	Program specific outcomes	Course outcomes*
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BBA Honors	Global, National, Regional, Local	<p>The Programme Educational Objectives are to prepare the students to:</p> <ol style="list-style-type: none"> 1. manage business activities like marketing, sales, finance and accounts, operations, public relations, logistics, supply chain management etc., 2. pursue for higher degrees to work in colleges, universities as professors or as scientists in research establishments 3. act as administrators in public, private and government organisations with further training 4. be conversant with environmental, legal, cultural, social, ethical, public safety issues 5. work as a member of a team as well as lead a team 6. communicate effectively across team members and work under constraints 7. set his/her own enterprise with further training 8. adopt lifelong learning philosophy for continuous improvement 	<p>Programme Outcomes (POs)</p> <p>After undergoing these programme students depending on subject specialization will be able to:</p> <ol style="list-style-type: none"> 1. perform management activities like marketing, sales, 2. accounting and financial planning, 3. Human resources sourcing and development, 4. public relations, 5. manage operations 6. Perform project management activity 7. act as an effective team member to ensure that projects are completed satisfactorily, on time, and within budget 8. conform to cultural, environmental, sustainability and ethical issues 9. communicate across teams verbally, visually and by writing 10. choose an appropriate online educational programmes for further learning, participate in seminars and conferences 	NA	Course Files
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**School of Management,
REVA University
MBA**

Program	Relevance of Curriculum to local / national / regional / global developmental needs	Learning objectives	Program outcomes	Program specific outcomes	Course outcomes*
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MBA	Global, National, Regional, Local	<p>The Programme Educational Objectives are to prepare the students to:</p> <ol style="list-style-type: none"> 1. Manage corporate activities like human resources, finance, operations, marketing and such related activities 2. pursue for higher degrees to work in colleges, universities as professors or as scientists in research establishments 3. act as administrators in public, private and government organisations with further training 4. be conversant with environmental, legal, cultural, social, ethical, public safety issues 5. work as a member of a team as well as lead a team 6. communicate effectively across team members and work under constraints 7. set his/her own enterprise with further training 8. adopt lifelong learning philosophy for continuous improvement 	<p>Programme Outcomes (POs)</p> <p>After undergoing this programme, a student depending on subject specialization will be able to:</p> <ol style="list-style-type: none"> 1. Formulate human resources policies for the organization 2. Recruit, train and monitor human resources of an organization 3. Manage operations of an organization 4. Plan and manage finances 5. Plan and execute marketing and sales activity 6. Perform project management activity 7. lead a team to ensure that projects are completed satisfactorily, on time, and within budget 8. conform to cultural, environmental, sustainability and ethical issues 9. communicate across teams verbally, visually and by writing 10. choose an appropriate online educational programmes for further learning, participate in seminars and conferences 	NA	Course Files
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Master of Performing Arts

Program Educational Objectives (PEOs)

PEO-1	Prospective Employment and Career Prospects-Become a professional performer (Dancer/Musician/Actor) with strong ethics & communication skills.
PEO-2	Research -Pursue research in reputed art institutes and centres of eminence at national & international level. Students will describe a range of techniques related to performing arts and rhetorical strategies used in texts, including their relationship to audience, purpose and cultural contexts.
PEO-3	Entrepreneurship/Artepreneurship- Establish dance institutes/studios and to work as entrepreneurs/Artepreneurs with an ability to develop new projects and choreographic works.
PEO-4	Continuous Learning-Adapt lifelong learning with continuous improvement by expanding the skill-set in response to a changing environment and new developments.

Program Outcomes (POs)

- 1. Performing Arts knowledge:** Apply the knowledge of Performing Arts, World Dance History, Art History, Tangible and Intangible Heritage, Dance History and Cultural History for the solution of complex problems in various domains of life sciences including the cultural, societal, and anthropological concerns.
- 2. Problem analysis:** Identify, formulate and analyze problems related to the various domains of Performing Arts such as technical aspects of performing arts, ancient Sanskrit treatises, movement analysis, historical timelines, Indian cultural heritage and various branches of art and architecture.
- 3. Conduct investigations of complex problems:** Use research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information related to any problems in the field of Performing arts to provide valid conclusions.

4. **Design complex choreography/art projects:** Create, design, compose, choreograph and critically evaluate dance choreography, music composition or a theatrical project with a professional approach
5. **Modern tool usage:** To create, select, and apply appropriate techniques, resources, and modern technology for theatre/dance and music productions which in turn benefit the audience.
6. **Ethics:** Apply ethical principles and commit to professional ethics, responsibilities and norms in performing arts field.
7. **Individual and team work:** Perform/Act effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.
8. **Communication:** Communicate effectively with the artiste's fraternity and with society at large. Be able to comprehend and write effective reports and documentation. Make effective presentations, and give and receive clear instructions.
9. **Art management and finance:** Demonstrate knowledge and understanding of Performing Arts and management principles and apply these to one's own work, as a member and leader in a team. Manage art projects in multidisciplinary environments.
10. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSO)

After successful completion of the program, the graduates shall be able to:

1. Visualise, Create, Design and Critically Analyse dance, music and theatre projects
2. Apply appropriate performing arts techniques and produce high quality productions and expressions of art
2. Use higher order critical, analytical skills to solve a new problem in multi-disciplinary and inter-disciplinary fields of Performing Arts.

MSc (Biotechnology)

Program Educational Objectives (PEOs)

The aim of the programme is to mold postgraduates with good basic, advanced knowledge in biotechnology, a professional biotechnologist with strong ethics & communication skills. Pursue research in reputed institutes at national & international level. Establish consultancy services and to work as entrepreneurs with an ability to develop new products/processes and adapt lifelong learning with continuous improvement

Program Outcomes (POs)

- 1. Science knowledge:** Apply the knowledge of Biotechnology for the solution of complex problems in various domains of life sciences including healthcare considering public health and safety, and the cultural, societal, and environmental concerns.
- 2. Problem analysis:** Identify, formulate and analyze problems related to the various domains of Biotechnology such as Environmental Biotechnology, Agricultural Biotechnology, Genetic Engineering, Forensic Biology and Nano Biotechnology.
- 3. Conduct investigations of complex problems:** Use research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 4. Modern tool usage:** To Create, select, and apply appropriate techniques, resources, and modern technology for product/process development which in turn benefit the society.
- 5. Environment and sustainability:** Understand and implement environmental friendly approaches in Biotechnology to support sustainable development.
- 6. Ethics:** Apply ethical principles and commit to professional ethics, responsibilities and norms in Life Sciences.
- 7. Individual and team work:** Function effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.
- 8. Communication:** Communicate effectively with the engineering community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give **and receive clear instructions.**

9. Project management and finance: Demonstrate knowledge and understanding of Biotechnology and management principles and apply these to one's own work, as a member and leader in a team. Manage projects in multidisciplinary environments.

10. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSO)

After successful completion of the programme, the graduates shall be able to

1. Acquire advanced knowledge and understand biotechnology products and processes; higher order critical, analytical, problem solving skills and interpretational skills to meet expectations of biotech industry, Health care and allied sectors, academics and research institutions.
2. Develop and enhance the competency of students in various domains of biotechnology such as Microbiology, Immunology, genetic engineering and its applications in terms of feasible and productive technology.
3. Equip students to take up their further career in various sectors of Biotechnology as an entrepreneur by offering them hands on exposure in business plan preparation and product development in an innovative way.

Program Educational Objectives (PEO's)

The Programme Educational Objectives of the M. Tech program in Cybersecurity of REVA University is to prepare graduates:

Sl. No	Program Educational Objectives (PEO's)
PEO-1	To Demonstrate skills as a Cybersecurity professional and perform the duties with ethical and moral values.
PEO-2	To Engage in active research for Professional development with an attribute of life-long learning
PEO-3	To be active and useful members of the society contributing to the economic and technological development of the nation and the world
PEO-4	Take up entrepreneurship for the growth of economy and to generate employment.

Program Outcomes (POs)

After successful completion of the Programme, the graduates shall be able to:

Sl. No	Program Outcomes (POs)
PO1	Demonstrate in-depth knowledge of specific discipline or professional area, including wider and global perspective, with an ability to discriminate, evaluate, analyze and synthesize existing and new knowledge, and integration of the same for enhancement of knowledge.
PO2	Analyze complex organizational problems critically , apply independent judgment for synthesizing information to make intellectual and/or creative advances for conducting research in a wider theoretical, practical and policy context.
PO3	Think laterally and originally, conceptualize and solve technical and business problems, evaluate a wide range of potential solutions for those problems and arrive at feasible, optimal solutions after considering public health and safety, cultural, societal and environmental factors in the core areas of expertise.
PO4	Extract information pertinent to unfamiliar problems through literature survey and experiments , apply appropriate research methodologies, techniques and tools, design, conduct experiments, analyze and interpret data, demonstrate higher order skill and view things in a broader perspective, contribute individually/in group(s) to the development of scientific/technological knowledge in one or more domains of engineering.
PO5	Create, select, learn and apply appropriate techniques , resources, and modern engineering and IT tools, including prediction and modeling, to complex engineering activities with an understanding of the limitations.
PO6	Possess knowledge and understanding of group dynamics, recognize opportunities and contribute positively to collaborative-multidisciplinary scientific research, demonstrate a capacity for self-management and teamwork, decision-making based on open-mindedness, objectivity and

	rational analysis in order to achieve common goals and further the learning of themselves as well as others.
PO7	Demonstrate knowledge and understanding of engineering and management principles and apply the same to one's own work, as a member and leader in a team, manage projects efficiently in respective disciplines and multidisciplinary environments after consideration of economic and financial factors.
PO8	Communicate with the professional community, and with society at large , confidently and effectively, such as, being able to comprehend and write effective reports and design documentation by adhering to appropriate standards, make effective presentations, and give and receive clear instructions.
PO9	Recognize the need for , and have the preparation and ability to engage in life-long learning independently, with a high level of enthusiasm and commitment to improve knowledge and competence continuously.
PO10	Acquire professional and intellectual integrity , professional code of conduct, ethics of research and scholarship, consideration of the impact of research outcomes on professional practices and an understanding of responsibility to contribute to the community for sustainable development of society.
PO11	Observe and examine critically the outcomes of one's actions and make corrective measures subsequently, and learn from mistakes without depending on external feedback (SELF learning)

Programme Specific Outcomes (PSO's)

After successful completion of the Programme, the graduates shall be able to:

PSO1	Develop an in-depth knowledge and skill sets in Cyber Security to monitor, prepare, predict, detect and respond and prevent cyber-attacks and ensure enterprise security.
PSO2	Identify, Assess, and Protect the enterprise IT assets and risks, perform risk analysis and develop policies and procedures based on compliance and able to define the architecture, design, and management of the security of an organization.
PSO3	Monitor, detect, respond, remediate cybersecurity threat using latest hardware and software tools and technologies, along with analytical and managerial skills to arrive at cost effective and optimum solutions either independently or as a team.
PSO4	Review scholarly work by referring journals, define a new problem, design, model, analyze and evaluate the solution and report as a project in the area of Cybersecurity.



SCHOOL OF ELECTRICAL AND ELECTRONICS ENGINEERING

M.Tech in Power and Energy Systems

Programme Educational Objectives (PEOs)

The Programme Educational Objectives are to prepare the students to:

- 1) Upkeep the knowledge of the latest technology and toolsets in Power and Energy Systems and pursue research in Power Systems and allied areas.
- 2) Work as a member of a team for successful career and communicate effectively in multidisciplinary environment with highest ethics to propagate ideas and promote teamwork.
- 3) Attain intellectual leadership skills to cater to the changing needs of power and energy industry, academia, society and environment

Programme Outcomes (POs)

After undergoing this programme, a student will be able to:

1. Able to design and develop electric power and energy systems.
2. Deliver technological solutions in the field of power systems by assimilating advances in allied disciplines, apply independent judgment for synthesizing information to make intellectual and/or creative advances for conducting research in a wider theoretical, practical and policy context
3. Think laterally and originally, conceptualize and solve engineering problems related to power & energy systems, simulate and experiment the various technological advances in the field of power systems using modern tools and techniques to arrive at feasible & optimal solutions.
4. Extract information pertinent to unfamiliar problems through literature survey and experiments, apply appropriate research methodologies, design renewable energy systems to protect environment and ecosystems, demonstrate higher order skill and view things in a broader perspective, contribute individually/in group(s) to the development of scientific/technological knowledge in power & energy systems
5. Create, select, learn and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling, to complex engineering activities with an understanding of the limitations
6. Possess knowledge and understanding of group dynamics, recognize opportunities and contribute positively to collaborative-multidisciplinary scientific research, demonstrate a capacity for self-management and teamwork, decision-making based on open-

mindedness, objectivity and rational analysis in order to achieve common goals and further the learning of themselves as well as others

7. Develop innovative and entrepreneurial solutions
8. Communicate with the engineering community, and with society at large, regarding complex engineering activities confidently and effectively.
9. Recognize the need for, and have the preparation and ability to engage in life-long learning independently, with a high level of enthusiasm and commitment to improve knowledge and competence continuously.
10. Acquire professional and intellectual integrity, professional code of conduct, ethics of research and scholarship, consideration of the impact of research outcomes on professional practices and an understanding of responsibility to contribute to the community for sustainable development of society.
11. Observe and examine critically the outcomes of one's actions and make corrective measures subsequently, and learn from mistakes without depending on external feedback.

Program Specific outcome:

1. Apply the fundamentals of engineering knowledge to identify, formulate, design, develop and investigate complex engineering problems of power systems, reactive power compensation, power system dynamics, grid integration, renewable energy system, energy efficiency, power quality, power system protection, power electronic controllers, automation & control systems, electrical machines and electric vehicle.
2. Apply the appropriate, state of the art techniques, technological advances and modern engineering hardware and software tools in power & energy systems to engage in life-long learning and to successfully adapt in multi-disciplinary environments.

Program Educational Objectives (PEO's)

The programme educational objectives of the Computer Science and Engineering of REVA University is to prepare graduates

PEO-1	To have successful professional careers in industry, government, academia and military as innovative engineers.
PEO-2	To successfully solve engineering problems associated with the lifecycle of Computer Science and Engineering either leading a team or as a team member
PEO-3	To continue to learn and advance their careers through activities such as research and development, acquiring doctoral degree, participation in national level research programmes, teaching and research at university level etc.,
PEO-4	To be active members ready to serve the society locally and internationally, may take up entrepreneurship for the growth of economy and to generate employment; and adopt the philosophy of lifelong learning to be aligned with economic and technological development.

Program Outcomes (POs)

After successful completion of the programme, the graduates shall be able to

PO1. Demonstrate in-depth knowledge of specific discipline or professional area, including wider and global perspective, with an ability to discriminate, evaluate, analyze and synthesize existing and new knowledge, and integration of the same for enhancement of knowledge.

PO2. Analyze complex engineering problems critically, apply independent judgment for synthesizing information to make intellectual and/or creative advances for conducting research in a wider theoretical, practical and policy context.

PO3. Think laterally and originally, conceptualize and solve engineering problems, evaluate a wide range of potential solutions for those problems and arrive at feasible, optimal solutions after considering public health and safety, cultural, societal and environmental factors in the core areas of expertise.

PO4. Extract information pertinent to unfamiliar problems through literature survey and experiments, apply appropriate research methodologies, techniques and tools, design, conduct experiments, analyze and interpret data, demonstrate higher order skill and view things in a broader perspective, contribute individually/in group(s) to the development of scientific/technological knowledge in one or more domains of engineering.

PO5. Create, select, learn and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling, to complex engineering activities with an understanding of the limitations.

PO6. Possess knowledge and understanding of group dynamics, recognize opportunities and contribute positively to collaborative-multidisciplinary scientific research, demonstrate a capacity for self-management and teamwork, decision-making based on open-mindedness, objectivity and rational analysis in order to achieve common goals and further the learning of themselves as well as others.

PO7. Demonstrate knowledge and understanding of engineering and management principles and apply the same to one's own work, as a member and leader in a team, manage projects efficiently in respective disciplines and multidisciplinary environments after consideration of economical and financial factors.

PO8. Communicate with the engineering community, and with society at large, regarding complex engineering activities confidently and effectively, such as, being able to comprehend and write effective reports and design documentation by adhering to appropriate standards, make effective presentations, and give and receive clear instructions.

PO9: Recognize the need for, and have the preparation and ability to engage in life-long learning independently, with a high level of enthusiasm and commitment to improve knowledge and competence continuously.

PO10. Acquire professional and intellectual integrity, professional code of conduct, ethics of research and scholarship, consideration of the impact of research outcomes on professional practices and an understanding of responsibility to contribute to the community for sustainable development of society.

PO11. Observe and examine critically the outcomes of one's actions and make corrective measures subsequently, and learn from mistakes without depending on external feedback (SELF learning)

Programme Specific Outcomes (PSO's)

After successful completion of the programme, the graduates shall be able to

1. Isolate and solve complex problems in the domains of Computer Science and Engineering using latest hardware and software tools and technologies, along with analytical and managerial skills to arrive at cost effective and optimum solutions either independently or as a team
2. Implant the capacity to apply the concepts of wireless communications, advanced computer networks, network security, IoT and cyber physical systems, etc. in the design, development and implementation of application oriented engineering systems
3. Review scholarly work by referring journals, define a new problem, design, model, analyze and evaluate the solution and report as a dissertation in the area of Data Science.

MSc Mathematics

Program Educational Objectives (PEOs)

The program educational objectives of the Mathematics of REVA University are to prepare the graduates to

PEO-1	Serve as a tutor in mathematics and perform with effective communication and ethics.
PEO-2	Carryout research in the areas of pure and applied mathematics and publish work as individual or in a team.
PEO-3	Provide consultancy in the advanced areas of mathematics with lifelong learning attitude.

Program Outcomes (POs)

- 1. Science knowledge:** Demonstrate the skills in the areas of mathematics and applied areas.
- 2. Problem analysis:** Apply mathematical skills to formulate, solve and interpret complex problems through mathematical models
- 3. Conduct investigations of complex problems:** Comprehend, analyze, model, and solve complex problems based on structured and relevant reasoning.
- 4. Modern tool usage:** Use latest computer techniques as a tool to carry out scientific investigations and develop new variants of the acquired methods and problems related to environment and society.
- 5. Ethics:** Exhibit professional and ethical responsibility
- 6. Individual and team work:** Encourage collaborative learning through group activities and hands-on learning.
- 7. Communication:** Communicate mathematical ideas with clarity and coherence, both written and verbally.

8. **Life-long learning:** Recognize the need to expertise in the areas of mathematics by self-up gradation through lifelong learning.

Program Specific Outcomes (PSO)

After successful completion of the programme, the graduates shall be able to

1. Demonstrate the knowledge of Mathematical Analysis, Algebra, Statistics, Optimization and Computational Mathematics.
2. Analyse and solve problems in Mathematical Analysis, Algebra, Statistics, Optimization and Computational Mathematics.
3. Use tools and techniques for addressing the problems of Industry, Organizations, and environment in Mathematical Analysis, Algebra, Statistics, Optimization and Computational Mathematics

SCHOOL OF COMPUTER SCIENCE AND APPLICATIONS

Bachelor of Computer Applications (BCA)

Programme Educational Objectives (PEOs)

The programme acts as a foundation degree for Computer Applications. It helps to develop critical, analytical and problem solving skills. This foundation degree makes the graduates employable in IT industries, scientific organisations and also to assume administrative positions in various types of organisations. The graduates will be able to pursue a career in academics or scientific organisations as a researcher if it is added on with further acquisition of higher level degrees.

The Programme Educational Objectives are to prepare the students to:

1. be Computer Application Developers, Algorithm developers, Computer Programmers
2. operate various commercial software tools to solve scientific and business problems
3. teach in schools with further relevant training and education
4. work along with engineering, medical, ICT professionals and scientists to assist them in their research and development work
5. act as administrators in public, private and government organisations with further training and education
6. acquire higher degrees which enable them to take up teaching profession in colleges and in universities or as scientists in research establishments or business administrators
7. understand environmental, legal, cultural, social, ethical, public safety issues
8. work as a member of a team and communicate effectively across team members
9. adopt lifelong learning philosophy for continuous improvement

Program Outcomes (POs)

- **PO 1: Disciplinary knowledge:** Capable of demonstrating comprehensive knowledge and understanding of computer science with specialization in computer Applications that form a part of under graduate programme BCA-Bachelor of Computer Applications.
- **PO 2: Scientific reasoning:** Ability to analyze, and understand concepts in computer science, critically evaluate ideas, logical reasoning and experiences in programming, algorithm development and application development.
- **PO 3: Problem solving:** Capacity to extrapolate and apply competencies to solve different kinds of non-familiar problems, such as design Algorithms, develop computer

programs for specific applications and operate commercially available software tools for solving scientific and business related problems.

- **PO 4: Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development and provide solutions for the same using domain knowledge in Computer Applications.
- **PO 5: Research-related skills:** Ability to recognize cause-and-effect relationships, define problems, analyze, interpret and draw conclusions from data.
- **PO 6: Ethics:** Conduct as a responsible citizen by recognizing different value systems and understand the **moral dimensions** of decisions, and **accept responsibility** for them.
- **PO 7: Cooperation/Team work:** Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team.
- **PO 8: Communication Skills:** Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups.
- **PO 9: Self-directed and Life-long Learning:** Acquire the ability to engage in independent and **life-long learning** in the broadest context socio-technological changes.



Registrar

REVA University

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